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INTRODUCTION

The quality of life in a community cannot be measured by statistics. It can only be expressed in terms of the collective experiences enjoyed by the residents. It includes such things as a comfortable climate, recreational and entertainment opportunities, educational and cultural life, and an aesthetically pleasing living environment. York County is perhaps best defined by its quality of life. Mild temperatures, a low crime rate, hundreds of miles of coastline, and abundant flora and fauna contribute to the County's reputation as a pleasant place to live.

To preserve and enhance this high quality of life is the overriding purpose of the York County Comprehensive Plan, which is the long-range plan for the physical development of the County. Like all localities in Virginia, York County is required by State law to adopt a comprehensive plan, but the reasons for developing the plan go well beyond fulfilling this mandate. The Comprehensive Plan is necessary to ensure the efficient use of land in recognition of environmental constraints and the capacity of the public infrastructure. Its intent is to provide for an appropriate mix of residential, commercial, and industrial development; to guide such development to appropriate areas of the County based on the carrying capacity of the land, the existing development character, and the presence of infrastructure and public facilities; to preserve the County's natural resources and aesthetic quality; and to prevent the overburdening of the County's roads, utilities, facilities, and services.

Although mandated by State law, a comprehensive plan does not have the status of law. Rather, it is a policy document intended to provide direction for present and future policy makers in making the laws and setting the policies to guide the County's development. The Comprehensive Plan is implemented by the County's various development ordinances – particularly the Zoning and Subdivision Ordinances – as well as the Capital Improvements Program.

Creating the Plan: Charting the Course to 2010

On December 5, 1991 the York County Board of Supervisors adopted Charting the Course to 2010: The County of York Comprehensive Plan, which was the first true *Comprehensive Plan* in the County's history. Land use plans for the County had been developed in 1956 and 1964 by Virginia's Division of Industrial Development and Planning, and in 1967 by Harland Bartholomew and Associates. Although never formally adopted by the Board of Supervisors, these plans served as a basis for the development of land use controls until the adoption of a Land Use Plan in 1976. Subsequently, a Schools Plan (1978), Major Thoroughfares Plan (1979), and Fire Protection Plan (1979) were developed and adopted as elements of the comprehensive plan. A new Land Use Plan was developed in 1982 and adopted in 1983. Unlike previous plans, the 1983 plan was developed not by an outside consultant but by the Planning Commission, Board of Supervisors, and County staff.

The 1991 plan is the product of over two years of work on the part of County planning staff, citizen volunteers, and elected and appointed officials. Public involvement was a key ingredient in the comprehensive plan process, beginning with the publication of a citizen questionnaire in the Summer 1989 issue of the Citizen News, which is mailed to every home and business in the County. Four Comprehensive Plan Review committees were established and given responsibility for developing the various plan elements. A fifth committee was also created to coordinate all of the elements into a single unified plan. Citizen volunteers served on each of these committees, which also included members of the Planning Commission, Board of Supervisors, School Board, Industrial Development Authority, and Parks and Recreation Advisory Board. A staff liaison was assigned to each committee. Because of the County's special relationship to the water and the twenty-year horizon of the plan, "Charting the Course to 2010" was adopted as the plan's theme.

The committees went to work in February 1990, holding meetings, field trips, and work-sessions which eventually numbered over 200. All of these meetings were open to the public, with meeting dates publicized on York County's cable channel 36, and several citizens regularly attended and participated. Two series of town meetings were conducted, first in May 1990 to invite the citizens to give the committees some direction and second in May 1991 to present the draft recommendations to the citizens and get their reaction. The citizens' comments were then incorporated into the final plan where

appropriate. The plan, Charting the Course to 2010, was adopted in December 1991 and was recognized in 1993 by the Virginia Chapter of the American Planning Association with its “Distinguished Professional Planning Project” award.

Updating the Plan: Charting the Course to 2015

Following the adoption of the Comprehensive Plan, the County’s Zoning Ordinance underwent a thorough review by staff, the Planning Commission, an ad hoc Zoning Ordinance Citizens Advisory Committee, and the Board of Supervisors. The purpose of this effort was to revise the zoning regulations where necessary to implement the policies set forth in the plan, and the results were a new Zoning Ordinance and Zoning Map, adopted in June 1995. In addition to the adoption of a new Zoning Ordinance and Zoning Map, there have been a lot of other changes in the County since the adoption of the Comprehensive Plan in 1991. Perhaps the most significant of these is a 30% increase in population (13,000 new residents), a 17% increase in school enrollment (1,700 new students) In addition, there have been many changes in County facilities, services, and programs, many of them directly resulting from the Comprehensive Plan. Some of the major changes are listed below in approximately chronological order:

- Initiation of a curbside trash collection and recycling program
- Opening of Chisman Creek Park
- Initiation of the Target 2000 program for sewer and water extension
- Closure of the landfill and establishment of the Solid Waste Management Center, including a solid waste transfer station and a regional composting facility, at the landfill site
- Establishment of the Senior Center of York
- Construction of the Grafton High/Middle School complex
- Closure of the York County Jail and, in concert with neighboring localities, construction of the Virginia Peninsula Regional Jail
- Construction of the York-Poquoson Courthouse
- Development of Kiln Creek Park
- Construction of the IDA-funded industrial shell building in York River Commerce Park

The Code of Virginia requires localities to review and if necessary update their comprehensive plans at least once every five years. Since the plan’s adoption in 1991, the Board of Supervisors has adopted amendments to the Comprehensive Plan to update the school enrollment and capacity figures as well as to incorporate the Regional Bikeways Plan, the Yorktown Master Plan, and the County Sidewalk Plan. Still there had been no comprehensive review of the entire plan, so in 1995 the Board began the review process by appointing the Forecast 2015 Committee, whose task was to develop housing, population, and school enrollment projections that would form the basis for the Comprehensive Plan update. The new projections were adopted by the Board of Supervisors on January 17, 1996. Then in March 1996, the Board appointed the sixteen-member Comprehensive Plan Review Committee consisting of ten citizen volunteers (two from each election district), two Planning Commissioners, and one representative each from the Board of Supervisors, School Board, Industrial Development Authority, and the York County Business Association. This committee was tasked with soliciting citizen comments regarding the Comprehensive Plan goals and objectives and recommending changes to the plan where necessary to incorporate any changes in circumstances or in the citizens’ goals for York County since 1991.¹

To determine how extensive a review would be necessary, the Committee undertook an extensive public input process designed to gather and measure public opinion regarding the Comprehensive Plan goals and objectives. This process included a statistically valid scientific survey of County residents (accurate within ± 3.7 percentage points), a questionnaire published in the Citizen News, two structured town meetings, and two unstructured town meetings. In addition, a 24-hour Comprehensive Plan Comment telephone line was established to enable citizens to leave taped messages with their comments. A variety of written, oral, structured, and unstructured methods were used to obtain as wide a range of input as possible from as many different sources as possible.

¹Resolution No. R96-65 (R), adopted by the York County Board of Supervisors March 20, 1996

Upon completion of this public input process, the Committee published its results in a report entitled Citizen Input, which was presented to the Board of Supervisors with the Committee's recommendation that, since the citizens' basic goals for the County had not changed in five years, the Comprehensive Plan undergo minor revisions rather than a major rewrite. The Board of Supervisors accepted this recommendation. (Readers who desire more detailed information about the Comprehensive Plan Review Citizen Input Process, which was recognized in 1997 by the National Association of Counties with an Achievement Award, are encouraged to read the Citizen Input report.)

The Committee then proceeded with a thorough review of the plan goals, objectives, and implementation strategies with the intent of incorporating, where necessary, changes that have occurred since the adoption of the plan in 1991. Goals and objectives that were no longer relevant or had been accomplished were deleted, while others were reworded for clarity, simplicity, or to reflect more closely the attitudes and opinions expressed by the citizens. In the meantime, the County's Planning Division, with assistance from other County staff, updated the plan narrative, again to reflect changes that have occurred since 1991. The plan was then reviewed by the Planning Commission, which held a public hearing and a series of work sessions before recommending adoption with certain modifications. The Board of Supervisors then thoroughly reviewed the plan and the Commission's recommendations, holding another public hearing and several work sessions before adopting the plan on October 6, 1999. Many of the revisions are minor changes in wording, and, for the most part, the Visions, Goals, and Strategies appear in this plan just as they were adopted by the Committee.

The updated Comprehensive Plan, like the original plan adopted in 1991, represents the combined efforts of York County's citizens, elected and appointed officials, and staff to analyze present conditions in the County, determine what the County's future needs will be, and devise strategies for meeting these needs. It is the community's vision for its future, specific enough to provide clear guidance to present and future policy makers yet broad and flexible enough to be adapted to account for changing circumstances.

Format of the Plan

Like the 1991 plan, the updated plan is divided into chapters or *elements* dealing with each of the seven subject areas addressed in the plan: community facilities, economic development, environment, housing, transportation, utilities, and land use. There is also an Introduction and a section entitled "Demographic Profile and Projections." The Land Use element is presented last since the designation of land uses incorporates information from all of the other elements. Several more significant changes to the format of the 1991 plan have also been made. Specifically, in updating the Comprehensive Plan, one of the goals of both the Comprehensive Plan Review Committee and the staff was to shorten the document to make it easier to use and understand. Therefore, much of the detailed technical information relating to existing conditions that appeared in the 1991 plan has been moved from the plan text to the appendices. Readers who desire more detailed information are encouraged to read the 1991 plan.

Each plan element consists of a brief Introduction, followed by a Summary of Existing Conditions, which is essentially an executive summary of the appendix for that element. This is followed by a section called Citizen Input and Planning Policies, which is an analysis of the County's present and future needs within the context of the results of the Comprehensive Plan Citizen Input Process. Each element then concludes with a series of recommendations divided into a Vision, Goals, and Strategies. The Vision statements are short, simple statements of how the County should look in the future based on the citizens' desires for their community. In order for this vision to be realized, there are a series of goals that must be accomplished. Each Goal is a statement of outcome that describes certain conditions to be met. Finally, for each goal there are specific actions, referred to as strategies, that should be undertaken. Although the nomenclature is somewhat different, the division of recommendations into a broad vision, general goals, and specific strategies mirrors fairly closely the 1991 plan's division of recommendations into overall goals, general objectives, and specific implementation strategies. The main difference is that each strategy is tied to a particular goal.

DEMOGRAPHIC PROFILE AND PROJECTIONS

INTRODUCTION

York County is located in the Virginia Coastal Plain on a peninsula formed by the James and York Rivers and the Chesapeake Bay. The Peninsula also includes James City County and the cities of Hampton, Newport News, Poquoson, and Williamsburg, all of which adjoin York County. The County and the Peninsula are part of the greater Hampton Roads region, which also includes the cities of Chesapeake, Norfolk, Portsmouth, Suffolk, Virginia Beach, and Isle of Wight County. York County is also within the Norfolk-Virginia Beach-Newport News Metropolitan Statistical Area (MSA), as defined by the U.S. Census Bureau.

The Census Bureau divides York County into ten Census Tracts for the purposes of data collection and reporting. The three northernmost Tracts (506, 507, and 508) encompass what is referred to in this plan as the upper County, while the remaining Tracts constitute the lower County. Within the County are several areas and communities that have no defined legal boundaries but whose general location is commonly known to the citizens. Foremost among these is historic Yorktown, which is the County seat and is located in Census Tract 505, as is the Lackey community, located along Old Williamsburg Road (Route 238) across from the Naval Weapons Station. The upper County, exclusive of the Naval Weapons Station, is often referred as the “Bruton (Magisterial) District.” Grafton, which is generally bounded by Goodwin Neck Road, Chisman Creek, Oriana Road, and the Poquoson River, includes Census Tract 503.02 and a portion of Tract 503.01. That portion of the County located south of the Poquoson Rivers and Harwoods Mill Reservoir is considered Tabb, which includes Tracts 502.01, 502.02, and the portion of Tract 503.01 south of Oriana Road. Other communities include Seaford (Tract 504.02), Dandy (in Tract 504.01), and Dare (in Tract 503.02).

DEMOGRAPHIC PROFILE

Population

York County is home to approximately 55,300 people and ranks seventeenth in population among the State’s 95 counties. In land area, however, York County is the third smallest county in Virginia, making it the sixth most densely populated county. The County’s population has been growing at a steady pace for the past several decades, but the 1990s have brought unprecedented rates of growth. According to the University of Virginia’s Weldon Cooper Center for Public Service, York experienced the highest percentage increase in population from 1990 to 1998 in the metropolitan area and the ninth-highest of Virginia’s 140 counties and cities. York’s ranking among the state’s counties rose from 23rd to 20th, and among all localities from 35th to 30th.

Although resident births in York County were on the rise almost continually throughout the 1980s and early ‘90s while deaths remained fairly stable, the vast majority of the County’s population growth – approximately 90% - is due to net migration, which is the difference between the number of people moving *into* a community and the number moving *out*. Most of the growth, and most of the net migration, has taken place in the lower County, which offers more residential land with fewer development constraints than the upper County, where public utilities are not as widely available and the roadway network is more severely limited. An estimated 87%

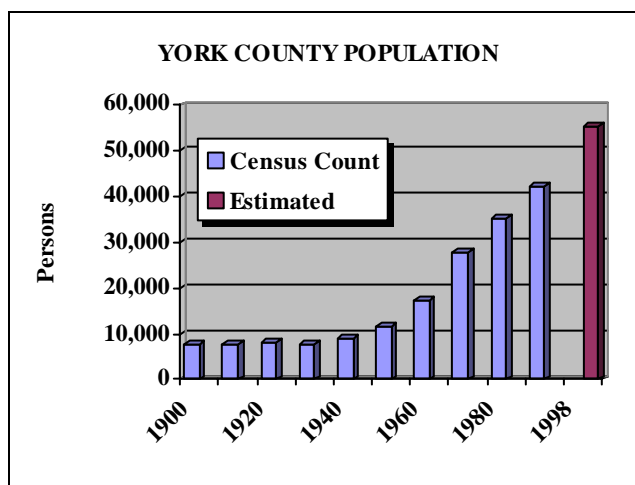
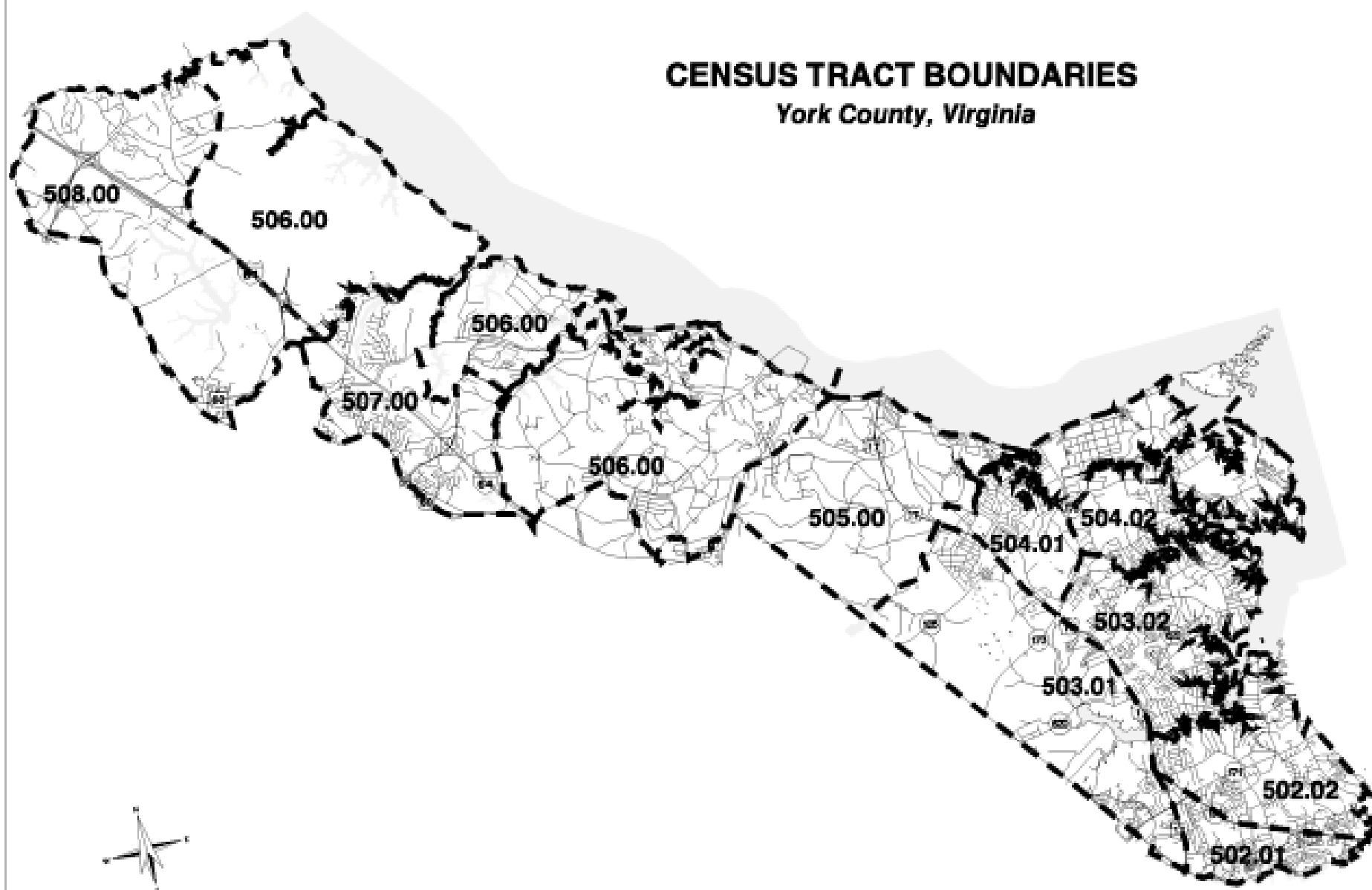


Figure 1

CENSUS TRACT BOUNDARIES

York County, Virginia



November 05, 1998
Prepared by York County
Computer Support Services

of the population growth in the County between 1990 and 1996 has been in the lower County, and of that 87%, over two-thirds has been in the Tabb area.

YORK COUNTY POPULATION AND HOUSING BY CENSUS TRACT 1980-1998							
Census Tract	General Area	1980		1990		1998	
		Housing Units	Population	Housing Units	Population	Housing Units	Population (Estimated)
502.01	Tabb	2,033	6,919	2,359	7,949	3,507	11,046
502.02	Tabb	938	2,877	2,138	5,781	3,149	8,354
503.01	Tabb, Grafton	997	2,792	1,341	3,296	2,727	6,880
503.02	Grafton, Tabb	1,931	5,794	3,200	8,708	3,726	9,831
504.01	Marlbank, Waterview, Dandy	841	2,332	1,094	2,989	1,251	3,344
504.02	Seaford	1,084	3,184	1,166	2,976	1,301	3,270
505	Yorktown, Lackey	924	2,963	867	2,130	931	2,239
Sub-Total	LOWER COUNTY	8,748	26,861	12,165	33,829	16,592	44,964
506	Military	232	1,383	262	1,234	262	1,234
507	Magruder/Penniman	1,630	4,844	1,805	4,711	2,291	5,923
508	Lightfoot, Skimino	791	2,375	1,052	2,648	1,244	3,138
Sub-Total	UPPER COUNTY	2,653	8,602	3,119	8,593	3,797	10,295
TOTAL	YORK COUNTY	11,401	35,463	15,284	42,422	20,389	55,259

Sources: U.S. Census Bureau (1980 and 1990 figures) and York County Planning Division (1998 figures)

Table 1

Age, Sex, and Race

The 1990 median age in York County was 32.8 years, four years older than it was in 1980 and nine years older than in 1970. The population is getting older, on average, as it is all over the country, because of the aging of the post-war baby boom generation born between 1946 and 1964 when fertility rates were remarkably high. The baby boom was followed by a “baby bust” period that brought lower fertility rates, causing a “bulge” in the age distribution of the population. Meanwhile, medical advances have increased the average life expectancy from 71 in 1970 to 75 in 1990, and the Census Bureau projects that it will increase to almost 78 by the year 2010. The cumulative effect of these trends has been to raise significantly the median age both in York County and nationally.

The racial composition of the County’s population has been fairly stable, with whites representing 81% of the population in both 1980 and 1990. Although the number of black residents increased from 6,118 in 1980 to 6,613 in 1990, the black proportion of the non-white population fell from 90% to 83% while the Asian population climbed from 4% to 12% of the minority population.

Households and Families

The vast majority of the County’s estimated 19,400 households are married-couple families, despite an increase in other types of living arrangements such as single-parent families, unrelated people living together, and people living alone. Families as a percentage of all households fell from 85% in 1980 to 82% in 1990, and married-couple families fell from 75% to 70% of all households.

This prevalence of married-couple families in York County is reflected in its relatively large average household size, which, at 2.90 persons per household, was the highest in the metropolitan area in 1990. This is partly attributable to the County’s large proportion of on-base military households living in housing, particularly

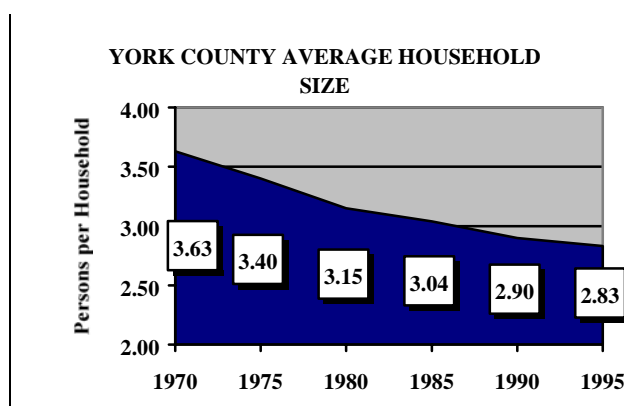


Figure 2

in Bethel Manor, built for military personnel with large families: the average household living on a military base in York County has 4.14 persons. For off-base households, the average household size is 2.76, which is still well above the statewide and metropolitan area averages of 2.61 and 2.69 persons per household respectively. Since 1990, the average household size is estimated to have fallen to 2.83 persons per household as the proportion of off-base households has grown.

Labor Force and Unemployment

York County's labor force grew by about 70% between 1980 and 1996, mostly as a result of continued population growth but also partly because of the increasing role of women in the work force. The labor force participation rate for women increased from 56% in 1980 to 62% in 1990. At the same time, the male labor force participation rate fell from 84% to 82%. As a result, women increased their share of the labor force from 38% in 1980 to 44% in 1990.

The military share of the County's labor force is shrinking, though not dramatically. As of 1990, there were 2,797 County residents serving in the armed forces. Although military personnel in the County increased in number by 12% between 1980 and 1990, the military's share of the labor force fell slightly from 14% to 12%.

This labor force is well educated. York County leads the metropolitan area and ranks third among Virginia's counties with 88% of its adult population holding at least a high school diploma. A third of these high school graduates have gone on to earn at least a bachelor's degree, and 12% of the County's adult residents hold a graduate or professional degree. The high level of education in the County is reflected in the types of jobs its residents hold. Over a third of the County's employed residents in 1990 held professional, executive, administrative, or managerial occupations.

York County has one of the lowest unemployment rates in the metropolitan area, and it consistently trails the regional, statewide, and national rates. In 1997, York County's average unemployment rate was 2.2%, while the jobless rate was 3.7% in the metropolitan area, 3.1% statewide, and 4.6% nationally.

Income

York County is one of the most affluent jurisdictions in Hampton Roads, with a 1989 median household income (as reported in the 1990 census) of \$40,363. York County was second in the metropolitan area to neighboring Poquoson. By 1996, the median household income had climbed to \$53,146, according to projections by the Weldon Cooper Center for Public Service.

Between 1979 and 1989, the median household income in York County nearly doubled, but most of these income gains were eaten away by inflation. When adjusted for inflation, the \$19,447 increase in the median household income translated into a *real* increase of \$3,741, which was the second-largest increase on the Peninsula. Similarly, the \$12,783 increase in median household income that is projected to have occurred since 1989 represents an inflation-adjusted increase of \$1,473.

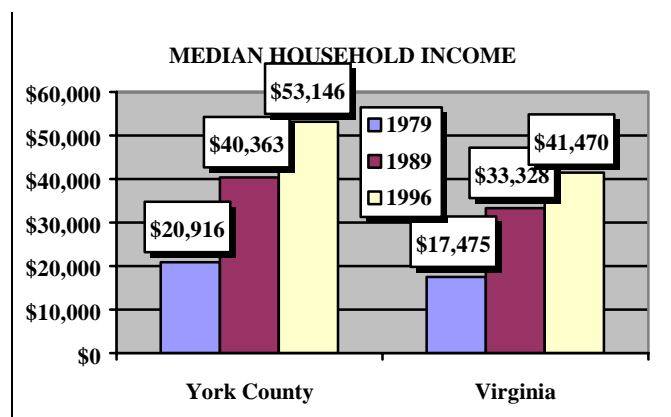
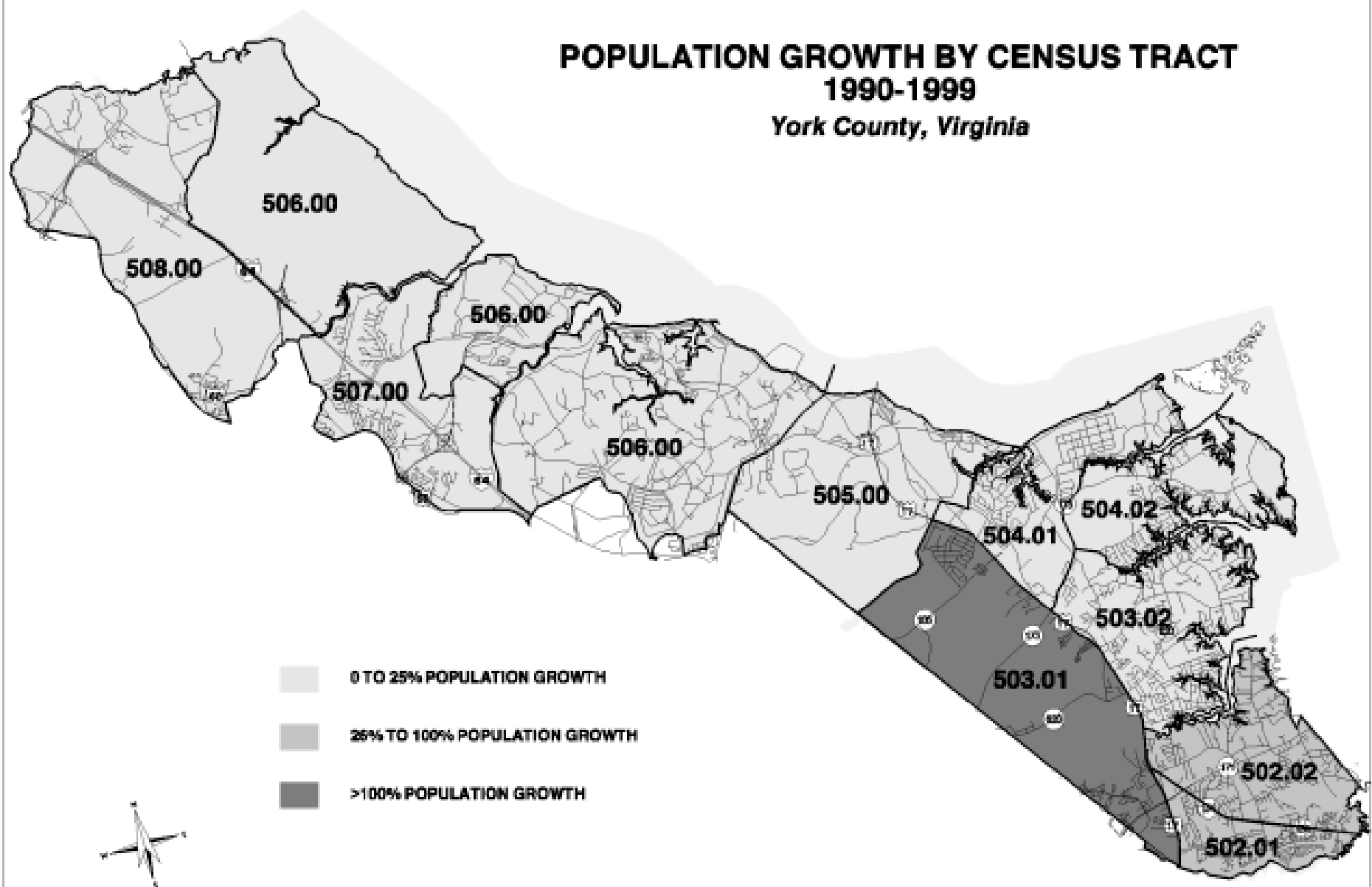


Figure 3

POPULATION GROWTH BY CENSUS TRACT 1990-1999

York County, Virginia

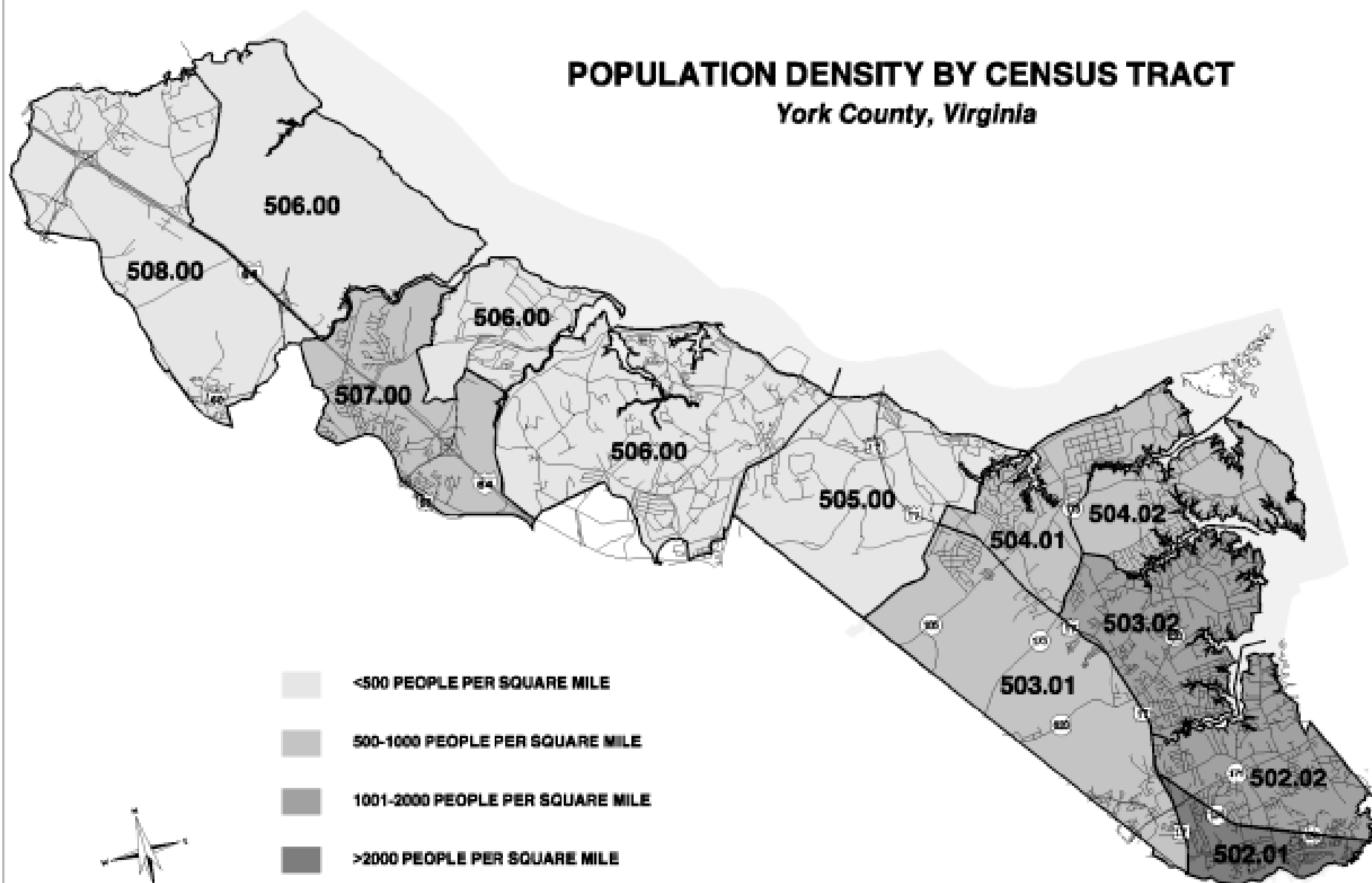


- 0 TO 25% POPULATION GROWTH
- 26% TO 100% POPULATION GROWTH
- >100% POPULATION GROWTH



POPULATION DENSITY BY CENSUS TRACT

York County, Virginia



CHANGES SINCE 1991

Although the County has experienced significant growth since the adoption of the Comprehensive Plan in 1991, the basic demographic profile of the County probably has not changed dramatically. Major demographic changes since 1991 are highlighted below:

- From 1991 to 1998, the County's population increased by 24%, from about 44,500 to 55,300.
- The percentage of County residents living in the lower County grew from 79.7% to 81.4% between 1991 and 1998.
- The average household size in the County has fallen from 2.90 persons per household in 1991 to an estimated 2.83 persons per household in 1998.
- The County's civilian labor force has grown from 20,000 in 1991 to 27,400 in 1998.
- The average annual rate of unemployment among County residents declined from 4.3% in 1991 to 2.9% in 1997 and continued to decline during the first half of 1998.
- The County's median household income rose from \$44,500 in 1991 to \$53,100 in 1996, which, when adjusted for inflation, represents an increase of almost \$1,400, or 4.2%.

POPULATION AND HOUSING PROJECTIONS

The population, housing, and school enrollment projections that appear in this plan were developed by the Forecast 2015 Committee, which was an ad hoc committee of citizens appointed by the Board of Supervisors in 1995 specifically for this purpose. Its report – entitled Forecast 2015 – and the projections contained therein were approved by the Board on January 17, 1996. The projection methodology that was used is described in Appendix A. (Readers who desire even more detailed information about the projections or the projection methodologies are encouraged to review the Forecast 2015 report.)

ACTUAL AND PROJECTED YORK COUNTY HOUSING UNITS AND POPULATION: 1990-2015						
Year	Upper County		Lower County		Total County	
	Housing Units	Population	Housing Units	Population	Housing Units	Population
1990	3,119	8,593	12,165	33,829	15,284	42,422
1995	3,519	9,490	15,164	40,840	18,683	50,330
2000	4,000	10,800	17,900	47,600	21,900	58,400
2005	4,500	12,200	21,000	55,400	25,500	67,600
2010	5,200	13,800	23,200	60,700	28,400	74,500
2015	5,900	15,700	23,700	61,800	29,600	77,500
Source: Forecast 2015: Report No. 1 of the 2015 Comprehensive Plan Review						

Table 2

Housing Units

It is projected that 9,200 new homes will be built in York County in the next twenty years. Over three quarters of this construction – 7,100 units – will take place in the lower County, which continues to offer a greater supply of residential land with fewer development constraints than the upper County. After 2005, however, the rate of housing growth in the lower County is projected to start slowing down as the continually increasing population density begins to enhance the relative attractiveness of the upper County, where housing construction is projected to continue at its present rate through 2005 and begin to accelerate thereafter. An additional 2,100 new units are projected in the upper County by 2015, expanding the housing stock by 55%. The housing stock is projected to grow by 43% in the lower County and 45% in the County as a whole.

The absolute increase in housing units tends to decline as the County approaches build-out because the cost of residential land rises as its supply falls, while increasingly the vacant land that remains has

constraints that limit its developability and thus reduce the number of units per gross acre. As a result, land is increasingly difficult to develop and development is less and less profitable; hence the rate of new housing construction declines.

Population

With the projected construction of over 9,000 housing units, York County's population is projected to continue growing at a high rate for the next twenty years, reaching 58,400 in the year 2000, 74,500 in 2010, and 77,500 in 2015 (see **Table 2**). Three quarters of this growth will be in the lower County, where the population is projected to increase by over a third (17,000 residents) between 1998 and 2015. In the upper County, an additional 5,400 residents are projected by 2015, representing an increase of one-half from its current population.

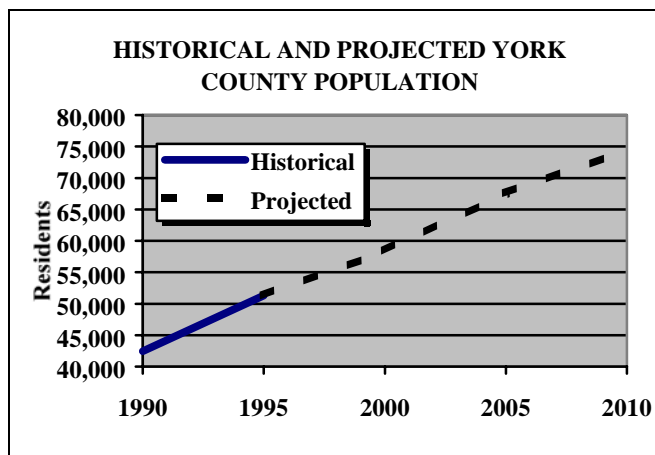


Figure 4

Figure 4 illustrates these population projections graphically. With consecutive increases of 16,000 residents each, the 1990s and the decade that follows will dwarf all previous decades in terms of population growth. Not until after 2010, when the supply of developable residential land in the lower County is projected to have been almost fully depleted, will population growth begin to taper off. By 2015, it is projected that the County as a whole will have reached 90% of its residential build-out capacity.

COMMUNITY FACILITIES

INTRODUCTION

As the population grows, so does the demand for public services and the facilities where they are provided. In planning for public facilities, it is important to consider not just the size of the County's future population but also its age and geographic distribution. Seniors and school-age children, for example, have very different service and facility needs. Moreover, the uneven geographic distribution of population growth is expected to continue. This increasing concentration of people in the lower County must also be taken into consideration in facility planning, since facilities should be convenient to the citizens who use them. Public facilities planning is especially challenging in York County because of its geography: York is a linear county, with the upper County separated from the lower County by a vast expanse of Federally-owned land. Consequently, without a central location that is readily convenient to a majority of County residents, it is sometimes necessary to have separate facilities for upper and lower County residents in order to meet the citizens' demands for conveniently located facilities.

Since many of the County's public facility needs are shared by neighboring jurisdictions, regionalism is often the most efficient way to meet these needs. Because it adjoins all other localities on the Peninsula, York County is uniquely suited to engage in a variety of regional efforts that allow communities to recognize facility *service area* boundaries, which are often more realistic than jurisdictional boundaries in providing community facilities. Regionalism often increases efficiency not only because it prevents needless duplication of effort but also because economies of scale can be realized.

Many changes have been made to community facilities in the County since 1991 to address some of the needs and issues identified in the 1991 Comprehensive Plan and some new problems that arose after its adoption. The County's severe jail overcrowding problem has been eliminated with the construction of the Virginia Peninsula Regional Jail. Likewise, construction of the new courthouse has eliminated the court overcrowding problem and dramatically improved the security and efficiency of court operations. The new courthouse also has helped to alleviate the overcrowding of County offices, as has the construction of the County Operations Center on Goodwin Neck Road. In addition, through the acquisition of 12 acres on Route 134, the County has taken the first steps toward eliminating the deficiency in library space documented in the 1991 plan.

School overcrowding, which emerged as a problem in the fall of 1992 with both the unexpected influx of a thousand new students and the School Board's redefinition and recalculation of school capacity, has been addressed with the construction of Grafton High/Middle School, additions to Coventry, Grafton-Bethel, and Magruder elementary schools, and reconstruction of Tabb High School.

Another problem involving community facilities that arose after the adoption of the 1991 plan was the advent of new state and federal landfill regulations that made continued operation of the County's landfill prohibitively expensive. The Board of Supervisors subsequently elected to close the landfill, which then became the site for a solid waste transfer station and a regional facility for composting yard debris. Related to this decision was the initiation of curbside trash and recyclable collection, which was one of the recommendations of the 1991 Comprehensive Plan.

Because "Community Facilities" is such a wide-ranging topic, this element of the Comprehensive Plan is divided into five sub-elements: Detention and Law Enforcement, Fire and Rescue, Government Offices, Libraries, and Schools. Each sub-element contains a summary description of existing conditions and a discussion of citizen input and planning policies for that particular topic. Following these sections is a summary of major changes in community facilities that have occurred since the adoption of the 1991 Comprehensive Plan, followed by an *overall* discussion of citizen input and planning policies related to community facilities in general. Like the other elements, this element concludes with a section detailing the Vision, Goals, and Strategies for community facilities.

DETENTION AND LAW ENFORCEMENT

SUMMARY OF EXISTING CONDITIONS

The York County Sheriff is the County's chief law enforcement officer, serves as court bailiff for York County and Poquoson, and, until recently, oversaw the York County Jail, which was demolished in 1998. York County's prisoners are now housed in the Virginia Peninsula Regional Jail with prisoners from James City County, Williamsburg, and Poquoson. A regional juvenile detention center also has been constructed on the Peninsula Regional Jail site.

The new regional jail has eliminated the jail overcrowding problem but does nothing to *prevent* crime from occurring or to make people feel more safe. As illustrated in **Figure 5**, York County's crime rate, which is one of the lowest on the Peninsula, has fluctuated over the years, generally declining from 1992 to 1996. Nevertheless, in a fast-growing locality, a crime rate that is stable or even declining slightly means that the *number* of crimes is increasing.

Detention and law enforcement in the County have undergone several changes since 1991, the most obvious of which is the closing of the York County Jail in Yorktown and the construction of the Virginia Peninsula Regional Jail on Merrimac Trail (Route 143) in James City County. This jail is built to house up to 288 prisoners and is designed to accommodate future expansion should the need arise.

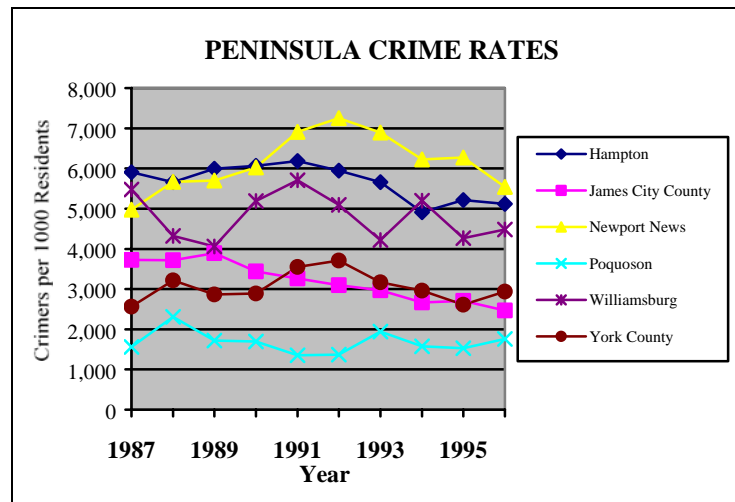


Figure 5

The other significant change is the construction of the Merrimac Center, which is a regional juvenile detention center located next to the Regional Jail on Merrimac Trail in James City County. This 48-bed center, which opened in December 1997, is owned and operated by a regional Juvenile Detention Commission made up of nineteen member localities, including York County. It is a self-contained facility with 24-hour per day supervision of juvenile offenders under the age of eighteen. The Commonwealth pays a portion of the operating costs and the member localities pay a per diem charge for each juvenile housed.

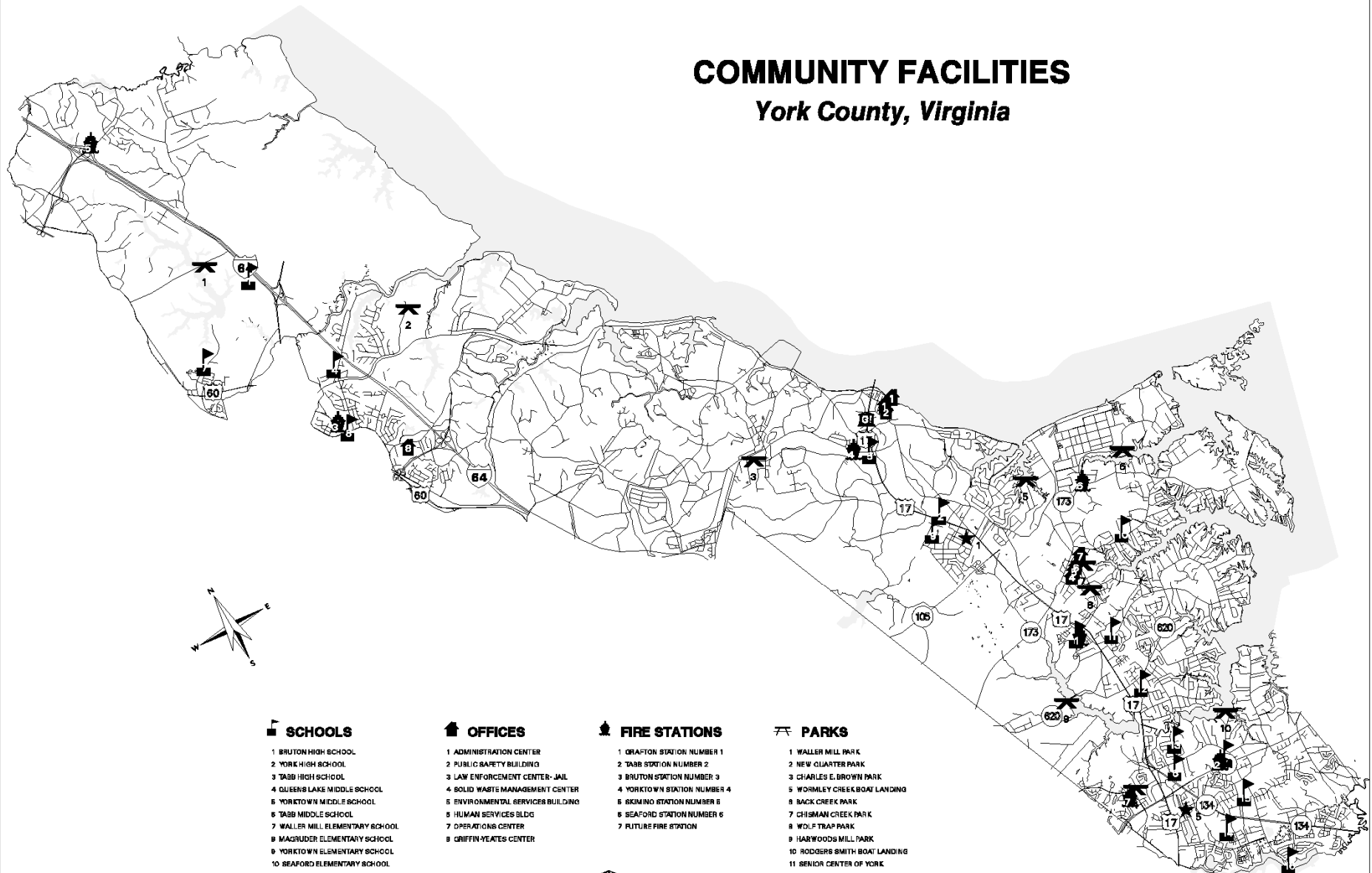
CITIZEN INPUT AND PLANNING POLICIES: DETENTION AND LAW ENFORCEMENT

Citizen support for satellite sheriff's sub-stations appears to be high relative to other community facilities, ranking third among the eight choices given on the Comprehensive Plan Review Survey. The purpose of sub-stations is for law enforcement to provide an effective deterrent to crime by establishing a presence within our communities. The Sheriff's Office currently provides such a presence through its ongoing patrols throughout the County, but resources and manpower are limited, and it would not be feasible to have a deputy on every street corner. Small sheriff's sub-stations located in different areas of the County are one way to establish a *permanent* presence that might help to prevent crime. Currently, the Sheriff's Office operates out of the York County Finance Building in Yorktown but is to be relocated to the County Operations Center, which is less centrally located, geographically, than Yorktown, but is closer to the center of population. As part of an overall community policing strategy, sub-stations in different areas of the County could help to build strong bonds between law enforcement personnel and the people they are there to protect.

The County's detention needs have been met with the construction of the regional jail and juvenile detention center, both of which can be expanded if the need arises.

COMMUNITY FACILITIES

York County, Virginia



SCHOOLS

- 1 BRUTON HIGH SCHOOL
- 2 YORK HIGH SCHOOL
- 3 TABB HIGH SCHOOL
- 4 QUEENS LAKE MIDDLE SCHOOL
- 5 YORKTOWN MIDDLE SCHOOL
- 6 TABB MIDDLE SCHOOL
- 7 WALLER MILL ELEMENTARY SCHOOL
- 8 MAGRUDER ELEMENTARY SCHOOL
- 9 YORKTOWN ELEMENTARY SCHOOL
- 10 SEAFORD ELEMENTARY SCHOOL
- 11 DARE ELEMENTARY SCHOOL
- 12 GRAFTON BETHEL ELEMENTARY SCHOOL
- 13 MOUNT VERNON ELEMENTARY SCHOOL
- 14 COVENTRY ELEMENTARY SCHOOL
- 15 TABB ELEMENTARY SCHOOL
- 16 BETHEL MANOR ELEMENTARY SCHOOL
- 17 GRAFTON HIGH/MIDDLE SCHOOL
- 18 FUTURE SCHOOL SITE

OFFICES

- 1 ADMINISTRATION CENTER
- 2 PUBLIC SAFETY BUILDING
- 3 LAW ENFORCEMENT CENTER-JAIL
- 4 SOLID WASTE MANAGEMENT CENTER
- 5 ENVIRONMENTAL SERVICES BUILDING
- 6 HUMAN SERVICES BLDG
- 7 OPERATIONS CENTER
- 8 GRIFFIN-YEATES CENTER

LIBRARIES

- 1 YORK COUNTY PUBLIC LIBRARY

FIRE STATIONS

- 1 GRAFTON STATION NUMBER 1
- 2 TABB STATION NUMBER 2
- 3 BRUTON STATION NUMBER 3
- 4 YORKTOWN STATION NUMBER 4
- 5 SKIMINO STATION NUMBER 5
- 6 SEAFORD STATION NUMBER 6
- 7 FUTURE FIRE STATION

COURT BUILDINGS

- 1 CIRCUIT COURT BUILDING
- 2 DISTRICT COURTS BUILDING
- 3 FUTURE COURT BUILDING

PARKS

- 1 WALLER MILL PARK
- 2 NEW QUARTER PARK
- 3 CHARLES E. BROWN PARK
- 5 WORMLEY CREEK BOAT LANDING
- 8 BACK CREEK PARK
- 7 CHISMAN CREEK PARK
- 8 WOLF TRAP PARK
- 9 HARWOODS MILL PARK
- 10 RODGERS SMITH BOAT LANDING
- 11 SENIOR CENTER OF YORK

November 04, 1999
Prepared by York County
Computer Support Services

FIRE AND RESCUE

SUMMARY OF EXISTING CONDITIONS

Fire and rescue, including Emergency Medical Services (EMS), is provided by the York County Department of Fire and Life Safety. Fire and rescue field operations are conducted from six fire stations strategically located throughout the County to ensure emergency response to most areas within five minutes or less. A site for a future fire station is located on Kiln Creek Parkway in the Tabb area. The County also maintains mutual aid agreements with surrounding localities and federal facilities that provide for the sharing of resources during emergency incidents.

Fire and rescue personnel are required to respond to many different types of emergencies besides fires and car accidents. To ensure response to the broad range of emergencies that can occur in the County, the Department of Fire and Life Safety has developed contingencies for special incident responses, both locally and regionally. A technical rescue team operates out of the Yorktown Fire Station, which is centrally located for response to both the upper and lower County. This team, which is also part of a larger regional technical rescue team, includes water rescue, rope rescue, and limited confined space, trench, and heavy vehicle rescue. The County also has the capability, though somewhat limited, to respond to certain types of hazardous materials incidents. Fire and rescue personnel are trained to provide defensive tactics should a spill, leak, or fire occur with very limited types of hazardous materials. In addition, because the County is vulnerable to hazards – such as a Surry Nuclear Power Station accident, a hurricane or other natural disaster, or a significant hazardous materials incident – that can affect large, heavily populated areas, the County’s Office of Emergency Management develops and maintains emergency operations plans to deal with such large-scale emergencies.

Training of fire and life safety personnel is critical to the County’s continued readiness for response and service. The Department of Fire and Life Safety coordinates and/or conducts most of the training required for its staff. The department participates on a regional basis for its dispatcher and firefighter recruit training and routinely conducts in-house continuing education and refresher training.

Other than the relocation of office space and the establishment of the Grafton High/Middle School as an emergency shelter, there have been no changes to fire and rescue facilities since the adoption of the Comprehensive Plan in 1991. Shortly before the plan was adopted, the County completed a dramatic expansion of its fire and rescue capability, doubling from three to six the number of fire stations in the County. There have, however, been programmatic and other changes, some of which could affect facility needs. These include automatic external defibrillation capability placed on fire apparatus; more efficient use of properly designed rescue trucks; use of mechanical CPR devices called thumpers; initiation of the technical rescue team; combined vehicle functions; and participation in the Tidewater Regional Technical Rescue Team.

New programs include the “Heads Up” program, pre-arrival emergency medical instructions, the “Appeals on Wheels” speed awareness radar trailer, the Fall Prevention Program (designed to prevent ground level falls and personal injuries), and various educational programs.

CITIZEN INPUT AND PLANNING POLICIES: FIRE AND RESCUE

Based on the Comprehensive Plan Citizen Input Process, the citizens are satisfied with the quality of fire and rescue service in the County. This is one aspect of the County’s quality of life that generated few if any calls for change or improvement among the citizens. This is not surprising since the County only recently completed a significant upgrade of its emergency response capability, adding three fire stations. The citizens’ satisfaction with the County’s emergency response capability is also a tribute to the high quality of service provided by the Department of Fire and Life Safety.

Continued population growth in York County and the surrounding area will affect the County’s fire and rescue response capability in a variety of ways. As the population continues to grow and as buildings age, the activity level of each fire station will change accordingly and will affect the ability to maintain the desired five-minute maximum response time. Furthermore, more residents will live in potential hurricane impact areas and in proximity to a transportation network that already carries large amounts of hazardous materials. More people also will live within the ten-mile emergency protection zone of the Surry Nuclear

Power Station. An efficient transportation network not only in York County but throughout the region will be critical to the ability of residents to evacuate from Hampton Roads. In addition, emergency sheltering needs will continue to increase in order to adequately accommodate higher population and residents that may have special needs.

The key to acceptable response times is the availability of units within an acceptable distance, as well as an adequate transportation network with limited traffic congestion. Currently, the County has an additional fire station site on Kiln Creek Parkway in Tabb. Other stations may be needed sometime after 2004. However, existing stations may need to be expanded before then. The Yorktown Station, for example, which houses the technical rescue team, may need additional bay/apparatus storage space in the future because of the amount of equipment housed at this facility and the importance of its central location.

Although no new fire stations will be needed in the foreseeable future, the 1991 Comprehensive Plan identified the need for some type of training facility for fire and rescue personnel. In cooperation with state agencies and other localities in Hampton Roads, the County is pursuing expansion of its training resources with such things as dispatcher training props and a fire burn building and training facility. It is desirable that any such facility be located in York County or nearby in order to minimize the impact on emergency services response capability when equipment and personnel are sent for training.

GOVERNMENT OFFICES

SUMMARY OF EXISTING CONDITIONS

York County has two major government office complexes – one in Yorktown and one on Goodwin Neck Road – with a total of ten buildings. The Solid Waste Management Building is also located on Goodwin Neck Road, while the Griffin-Yeates Center is located on Government Road in the upper County.

In addition to being one of the County's major governmental centers, Yorktown is home to the County's court system. The circuit court, general district court, and juvenile and domestic relations court for York County and Poquoson operate out of the new York-Poquoson Courthouse in Yorktown, which opened in 1997. This 59,680-square foot courthouse was built to accommodate the rapidly growing caseloads of the courts and to address numerous deficiencies in the former Circuit Courthouse and the former District Court Building that compromised the security, safety, and efficiency of court operations. The new courthouse, which also houses court-related agencies, has been designed to meet the County's court space needs at least through the year 2014. It contains five courtrooms and has room for expansion if necessary.

Significant changes have been made since 1991 to increase the amount of County office and court space, most notable of which are the construction of the County Operations Center in 1992 and the new York-Poquoson Courthouse in 1997. The Operations Center now houses the Departments of Environmental and Development Services and General Services, while the Department of Fire and Life Safety and the Sheriff's Office are scheduled to move into the Human Services Building. In addition, a new 4,200-square foot building has been constructed at the Operations Center to house the Division of Parks and Recreation and the VPI Extension Service. In addition, the former Circuit Courthouse and the former District Courts Building (now known to as the Finance Building) are scheduled for renovation work. Several departments and agencies will be relocated in 1998 and 1999 to make efficient use of the space that has become available since the new York-Poquoson Courthouse was completed. In addition, the Law Enforcement Center (York County Jail) and Law Enforcement Center Annex have been demolished to provide for more open space and parking in historic Yorktown.

CITIZEN INPUT AND PLANNING POLICIES: GOVERNMENT OFFICES

In the Comprehensive Plan Review Citizen Input Process, citizens did not express any interest in adding court or office space. This is not surprising since the courthouse was under construction at the time and since County offices are generally viewed as benefiting County employees more than citizens. Almost two-thirds of the residents want the seat of County government to remain in historic Yorktown, while less than a third, most of whom live in the lower County, favor moving it to the Goodwin Neck Road campus

to be closer to the center of the County's population. On the survey, the citizens generally did not support the idea of establishing satellite County offices offering limited services (such as tax/bill payment, decal sales, car registrations, etc.) in convenient locations.

In a steadily growing community, it is almost inevitable that the size of the government – particularly at the local level, where most government services are directly provided – will grow to meet the needs of its citizens. York County's development from a largely rural county into a suburban one facing correspondingly more complex issues caused the County's workforce to increase between 1980 and 1990 from 7.8 to 10.2 employees per thousand residents. Since 1990, increases in County employment have been much less dramatic: The number of employees rose to 535 in 1995, while the number of employees per thousand residents was basically unchanged at 10.4. Much of this growth is due to an increased commitment to public safety reflected in the opening of three new fire stations and the hiring of additional Sheriff's deputies. In fact, almost half of the new full-time positions created between 1990 and 1995 are in the Department of Fire and Life Safety and the Sheriff's Office.

Prior to the construction of the York-Poquoson Courthouse in 1997, many of the departments and constitutional offices were overcrowded. Space that became vacant in various buildings as a result of the construction of the new courthouse will alleviate most of the overcrowded office conditions for five to ten years and in some cases provide room for modest growth until the year 2015. If the ratio of employees to population were to remain stable in the future as the population grows – or even to decline somewhat as a result of increased efficiency through technological advances – it is projected that the County would need an additional 100 to 150 employees by 2015 in order to continue to provide high-quality service to its citizens. Although some of these employees will be field employees (deputies, laborers, mechanics, etc.) who do not need office space, others will require office space.

Without the acquisition of more land, there is little opportunity to expand office facilities in Yorktown other than the Administration Center, which is not architecturally or aesthetically compatible with historic Yorktown. If the Administration Center were demolished, a new building could be constructed that could address aesthetic issues and, if necessary, provide some additional office space. In contrast to Yorktown, the Operations Center has significant land area (52 acres) to build more office and shop space for County departments and agencies without acquiring more land. Since the results of the Comprehensive Plan Review Survey do not indicate any strong citizen demand for satellite County offices (except for satellite Sheriff's sub-stations), there does not appear to be a need to acquire additional land for County office space.

In addition, new technologies now provide opportunities to reduce the need for office space. Telecommuting, for example, which allows employees to work in their homes, connected to the office by a computer and a modem, has been in use for years in private industry and also in some public agencies that have found it to be far more cost-effective than building, operating, and maintaining office buildings. This concept should become more widespread and efficient in local government when video conferencing becomes more popular and cost-effective. Similarly, the use of CD-ROM and other electronic means of file storage and retrieval can greatly reduce the County's record storage space needs.

As noted earlier, the new courthouse has been designed to meet the County's court space needs at least through the year 2014 and could potentially meet needs well beyond through the use of new technology, extension of court hours, addition of a courtroom on the second floor, or relocation of various court functions to the adjacent Finance Building. The new courthouse has five courtrooms and is large enough to handle a Family Court if one is created.

LIBRARY SERVICE

SUMMARY OF EXISTING CONDITIONS

York County operates an 11,900 square foot public library located on Route 17 in Grafton. As a result of population growth, the demand for library services exceeds the capacity of this facility. Consequently, as recommended in the 1991 Comprehensive Plan, the County has acquired land on Route 134 in Tabb for a second library, which has recently been completed. Most upper County residents use the Williamsburg-James City County Regional Library System. The Regional Library operates two facilities – one in the

City of Williamsburg and one in upper James City County – which are geographically convenient for upper York County residents. Although not a member of the regional system, York County makes a voluntary annual contribution to help offset user costs.

The Virginia State Library Board (VSLB) has recommended guidelines for the provision of library services. These are published in Planning for Library Excellence, which defines a series of goals to help improve the quality of service. The measures of quality include building size, circulation, and the size of the library's collection of books and periodicals. There are three levels of quality for most of these guidelines, with Level III being the highest or "most excellent."

By the standards of the VSLB, the York County Public Library is approximately 55% too small and has too few books for the population it serves; for periodicals, however, the library exceeds the Level III standard of excellence, and in circulation, the library exceeds Level II. The space and book deficiencies were noted in the 1991 Comprehensive Plan, and the situation has worsened since then as a result of rapid population growth. The facility under construction will add 32,000 square feet and should meet future growth needs through the year 2015 and beyond. According to the population projections that appear in this plan, there will be 0.7 square feet of library space per capita in 2015.

Several changes to library service have been made since the adoption of the Comprehensive Plan in 1991. The York County Public Library's collection has grown by 15,000 books, 110 periodicals, and 1,720 audio/visual materials. Perhaps most significantly, however, the County is constructing a new library on Route 134. Also since 1991, the Williamsburg-James City County Regional Library system has constructed a branch library in the Norge area of James City County, and the Williamsburg Regional Library on Scotland Street has been expanded.

CITIZEN INPUT AND PLANNING POLICIES: LIBRARY SERVICE

In recent years, York County residents, particularly those who live in the Tabb area, have expressed considerable interest in expanded library service. On the Comprehensive Plan Review Survey, a new lower County library was ranked fifth by County citizens among desired community facilities, yet on the Citizen News questionnaire, libraries were listed as the top priority when citizens were asked, "Are there any new public services or facilities that you feel are needed in the County now or *will be* needed in the next twenty years?" As noted earlier, the new library recently completed on Route 134 will meet the library needs of lower County residents at least through 2015.

In the upper County, residents receive excellent service from the Williamsburg Regional Library system, but since York County is not a part of the regional system, there is no guarantee that this service will always be available. Sometime in the future the County may be faced with the need to become a full partner in the regional library system, or at least to increase the amount of funding it provides. In the Fiscal Year 1996-97, York County's contribution constituted 3.2% the Williamsburg Regional Library System's budget although the County represents about 12% of its registrants and its circulation.

PARKS AND RECREATION

SUMMARY OF EXISTING CONDITIONS

York County offers a variety of programs for active and passive recreation. Programs for young people include soccer, tennis, basketball, summer playgrounds, sports camps, and instructional classes (e.g., art, music, and dance). Adult programs include softball, basketball, tennis, volleyball, aerobics, and instructional classes. For senior adults, York County operates the Senior Center of York, offering activities, classes, special events, and trips, and programs and activities sponsored by the Historic Triangle Senior Center located in the James City County-Williamsburg Community Center are available to seniors living in the upper County. Residents of all ages can participate in the County's open gym and "Skate, Rattle, and Roll" roller skating programs.

Several recreational programs, many of which use County facilities, are also available to County residents through private organizations and other public agencies. These include youth baseball/softball associations, youth football/cheerleading associations, soccer clubs, swim team/aquatic clubs, and youth wrestling associations. In addition, Williamsburg and James City County recreation programs and facilities are available to upper County residents. Such programs meet a significant portion of the demand in the County for recreational activities.

Most County recreational activities take place on school grounds in accordance with the “school/park concept,” which provides for the development of recreational facilities at school sites for community use. This has proven to be an effective and economical means of providing athletic fields, gymnasiums, basketball and tennis courts, and playground areas that serve both school and community needs. Other County park and recreational facilities include Back Creek Park, Charles E. Brown Park, Chisman Creek Park, Kiln Creek Park, New Quarter Park, Wolf Trap Park, the Yorktown Waterfront, and the Old Wormley Creek and Rodgers A. Smith public boat landings.

The County’s seven public boat ramps are located in the lower County. The County intends to improve the existing public access sites and acquire new land for recreational use. The Rodgers A. Smith boat ramp is slated for improvements, including an improved floating dock, public rest room facilities, and, in conjunction with the extension of sanitary sewer, a pump station that will allow for future pump-out facilities at the boat ramp.

Also located in the County are several non-County parks, including the Colonial National Historical Park (owned and operated by the National Park Service), Waller Mill Park (City of Williamsburg), and Harwoods Mill Park (City of Newport News). Finally, many subdivision and apartment complexes in the County have private recreational facilities – such as swimming pools, playing fields, tennis courts, weight rooms – available for their residents’ use.

County parks and school/park sites are heavily used. Participation in York County recreational programs has increased 542% since 1990. Seventy-two percent of this growth, however, is due to the addition of the Senior Center of York and associated activities, instructional classes, and the two roller skating programs. Nevertheless, growth in *existing* programs – particularly youth baseball/softball, soccer, and tennis and adult softball – has also been significant. Excluding new programs that were introduced and others that were discontinued or transferred between 1990 and 1997, there was a 78% increase in overall program participation and a 67% increase in youth program participation during that period. Growth in adult programs was more moderate, with a 15% increase between 1990 and 1997.

County recreational programs and facilities have undergone significant growth and change since the adoption of the 1991 Comprehensive Plan. One major change has been the opening of the Senior Center of York and the collaboration of regional programming efforts for seniors in the upper County with the Historic Triangle Senior Center. Another new program is the “Skate, Rattle, and Roll” roller skating program, which began in 1994 at the Historic Triangle Community Services Center and has been expanded to Dare Elementary School. An open gym program and an instructional class program were also initiated during this period. Since 1991 the County also has expanded the variety of summer sports camps, has begun offering summer field trips for teens, and began sponsoring an adult volleyball league and a fall adult softball league. Meanwhile, the County also entered into a contract with the York County Little League to take over the County-sponsored youth baseball and softball league programs and transferred to James City County the operation of the Williamsburg area soccer program.

Changes to County recreational facilities since 1991 include the opening of Wolf Trap Park in 1992 and the renovation of and construction of new facilities – including a Community Services Center – at Charles E. Brown Park. Chisman Creek Park’s softball fields were irrigated in 1995, and the floating wooden docks at Back Creek Park were replaced with floating concrete docks. A crabbing and fishing pier was also constructed at Back Creek Park.

In accordance with the school/park concept, there also have been numerous improvements to recreation facilities at school sites. Most notably, the Grafton High School/Middle School complex, including athletic fields and gymnasium space, was constructed, and development of Kiln Creek Park began.

Baseball/softball fields were constructed at two elementary schools and on leased property adjacent to Tabb High School. Soccer fields were constructed at two elementary schools, while lights were also added to soccer fields at two other elementary schools. A new field hockey/soccer field and six new tennis courts were constructed at York High School, while the football/soccer field at Bruton High School was renovated and lighted. The athletic fields and outdoor basketball courts at Grafton Bethel Elementary School were renovated and relocated, and gymnasiums/physical education spaces were added to four elementary schools.

CITIZEN INPUT AND PLANNING POLICIES: PARKS AND RECREATION

The demand for recreational programs and facilities to accommodate them is evident in the increasing number of County residents participating in such programs. Participation in recreational programs will continue to grow as the population grows, provided that the programs and facilities are available. Parks and recreational facilities – particularly passive recreation – rated relatively highly in the Comprehensive Plan Review Survey.

In planning future recreational programs and facilities, it is important to consider the age structure as well as the size of the population. Demographic trends indicate steady aging of the population as the baby boom continues to move through the life cycle. York County's population is projected to grow by more than 50% in the next twenty years, while the school-age population is projected to grow by almost 30%. The size of the youth population is particularly important since a larger proportion of the young people, who generally have more leisure time than most adults and tend to be more physically active, participates in recreation programs.

In recent years, many citizens have advocated the development of a community center, although it did not emerge as one of the highest priority facilities in the Comprehensive Plan Review Survey. One benefit of a community center is that it can be designed to accommodate the needs of different age groups and therefore is able to serve a large segment of the population. The County has acquired land on Route 134 adjacent to the Tabb library site for future construction of some type of community or recreation center that would serve lower County residents. To provide similar opportunities for upper County residents would most likely involve a cooperative arrangement with existing community/recreation centers operated by James City County or the City of Williamsburg.

Citizens have been well served by the school/park concept in York County. However, an important aspect of facility use is the effect of inadequate high school facilities on other school and park facilities that are supposed to be available for community use. For example, the Tabb and Grafton High School soccer and field hockey teams have had to use Mount Vernon Elementary School and Wolf Trap Park for their practices and games because of problems with athletic fields at these high schools. The intensity of high school interscholastic sports has had a detrimental effect on these fields such that they need to be renovated. However, because of the heavy demand for field usage, it would be extremely difficult to take these fields out of service without hindering community-based programs. Situations like these make it imperative to provide facilities that are able to support the effective operation of each high school's interscholastic athletic program.

Based on these factors, it is apparent that existing park facilities will not be able to meet all of the future demand for athletic fields in the County. Acquisition of land in addition to the existing school and park sites for development of athletic fields would at least enable current service levels to be maintained into the future. Consideration should also be given to lighting as many athletic fields as possible in order to maximize the available number of usage hours. Acquisition of additional land (especially in the lower County) should also be considered if there is any need in the future to develop other types of park and recreational facilities such as an outdoor pool, picnic areas/facilities, walking/bicycle trails, etc.

Proximity to the York River and the Chesapeake Bay makes boating an extremely popular activity in York County, but proximity does not guarantee access. Much of the County's shoreline is federally-owned, contributing to a shortage of boat landings in the County. The demand for water acreage from water-based recreational activities is expected to increase by 13% between the year 2000 and 2010. The 1990 Chesapeake Bay Public Access Plan recommends improved water access in the area west of the Coleman Bridge and east of York River State Park in James City County, along the Poquoson River,

along the Colonial Parkway, and along Queen Creek. Chisman Creek would also be a good site for a public boat launching facility because there is deeper water suitable for launching larger boats. The parking lot at Back Creek Park could also be considered for expansion. For canoeists and kayakers, the Wormley Creek Boat Landing has potential for improved access. In addition, increased accessibility to the large tidal marshes along the creeks of the County would allow for nature study and environmental education.

There has been interest in examining the feasibility of opening New Quarter Park on a regular basis and possibly providing additional recreational facilities, which would enable greater use of this facility by the public. The park's location along Queen Creek presents an opportunity for improved public access to the water, possibly with improved facilities for canoeing and kayaking. Proximity to the water also heightens the need for proper environmental stewardship and dictates that any new facilities be planned and constructed with particular attention to environmental impacts. Because the property was acquired through a federal surplus land program, the deed for the park stipulates that the Department of Interior must approve any future development plans and that the site must be used in perpetuity for public recreational purposes only.

SCHOOLS

SUMMARY OF EXISTING CONDITIONS

The York County school system consists of ten elementary schools, four middle schools, and four high schools. In addition, the County owns an undeveloped 20-acre school site in the Kiln Creek area. York County operates one magnet school program, the School of the Arts, which is located at Bruton High School and offers classes in literary and theater arts. York County schools also provide adult learning opportunities in both basic and continuing education.

School enrollment, like population, is a function of both the birth rate and the net migration rate. This is clearly illustrated in **Figure 6**, which shows that the 1960s – when the entire school population was made up of members of the baby boom – were the school system's major growth period. The baby boom brought a net increase of 4,500 school students between 1960 and 1970. Growth in school enrollment slowed down during the 1970s as the baby bust replaced the baby boom, leading eventually to a decline in enrollment between 1980 and 1985. This period of decline was short-lived, however, as members of the baby boom began to have babies of their own, producing a "baby boom echo" that triggered a resurgence of school enrollment growth beginning in 1986. This occurred just as new home construction also began to rise, bringing a rapid influx of new families into York County and new students into the school system. The combined effect of the increasing birth rate and the fifth-highest net migration rate in Virginia has been a 22% increase in school enrollment in the 1990s.

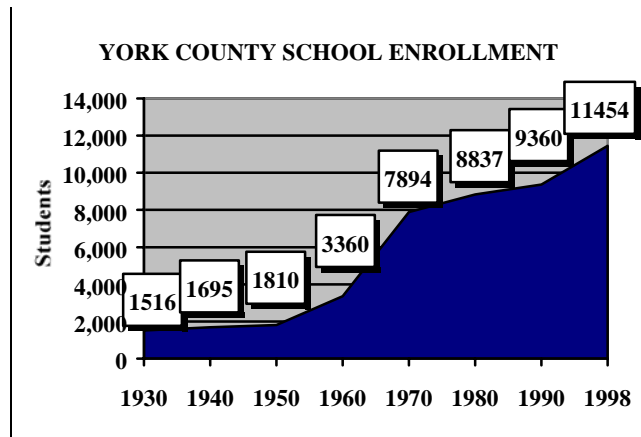


Figure 6

Over 95% of the growth in school enrollment has been in the lower County. While upper County enrollment has been fairly stable in the 1990s, growing by a total of 90 students (5%), the number of students in lower County schools has climbed by over 1,700 (22.5%).

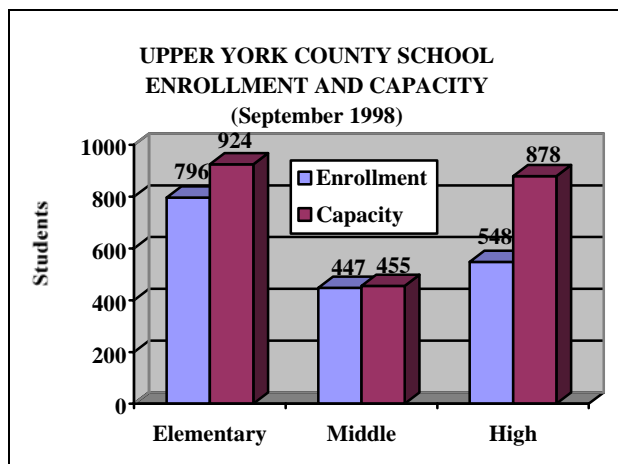


Figure 7

At the same time that enrollment began to increase dramatically, the school system's

building capacity declined as a result of a recalculation of school capacity by the School Board. In 1992, the School Board hired a consultant to measure the *program* capacity of each of the County schools based not only on the size of each instructional space but also the program for which it was being used. Previous capacity figures had always been based on the original architectural capacity of the school buildings, which does not take into account the constraints placed on physical space by programs, State education mandates, and School Board policies. Several sets of figures were prepared under differing scenarios regarding such variables as the student/classroom ratio and the range of classes offered at each school level. The School Board ultimately adopted program capacity figures nearly 25% below the architectural capacity figures that had been used previously.

Growing enrollment and the reduction in capacity led to overcrowding in some schools, particularly at the elementary level, and the Board of Supervisors and School Board have taken steps to alleviate this overcrowding. The most notable of these steps is the construction of the Grafton High School/Middle School complex, which opened in September 1996 and increased total system capacity by 2300. Additions have been built at several other schools, including Coventry, Grafton-Bethel, Yorktown, Magruder, Dare, Bethel Manor, and Tabb Elementary Schools. Tabb High is being re-built and expanded.

More an art than a science, projecting future school enrollment is an exercise in educated guesswork because of the many intangible variables involved. Enrollment projection is especially difficult in localities like York County that have sizable military populations; military transfers, as well as changes in defense policy at the Federal level, are unforeseeable events that can produce great fluctuations in enrollment. Nevertheless, it is possible to glean some insight into future school enrollment trends by analyzing the long-range trends of the past.

The school enrollment projections contained in this plan were developed by the Forecast 2015 Committee, which was discussed in the Demographic Profile and Projections section of this plan. These long-range projections were adopted by the Board of Supervisors in January 1996 and are shown in **Table 4**. This table also shows current school capacity.

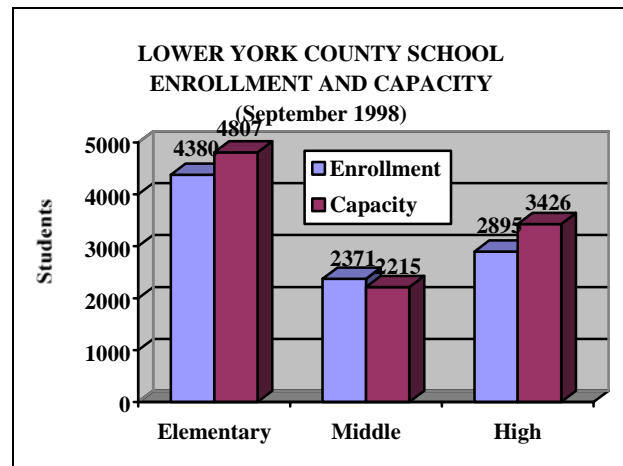


Figure 8

ACTUAL AND PROJECTED YORK COUNTY SCHOOL ENROLLMENT AND CAPACITY												
	1992 Program Capacity	1994 (Actual)		1998 Program Capacity	1999 (Projected)		2004 (Projected)		2009 (Projected)		2014 (Projected)	
		Students	Surplus or Deficit		Students	Surplus or Deficit	Students	Surplus or Deficit	Students	Surplus or Deficit	Students	Surplus or Deficit
UPPER COUNTY												
Elementary	694	812	-118	924	940	-16	1,010	-86	1,020	-96	1,070	-146
Middle	455	427	28	455	440	15	550	-95	570	-115	570	-115
High	878	550	328	878	630	248	620	258	760	118	760	118
TOTAL	2027	1789	238	2257	2010	247	2,180	77	2,350	-93	2,400	-143
LOWER COUNTY												
Elementary	3,573	4,122	-549	4,807	5,030	-223	4,980	-173	4,860	-53	4,790	17
Middle	1,215	2,085	-870	2,215	2,440	-225	2,910	-695	2,750	-535	2,760	-545
High	2,126	2,570	-444	3,654	3,230	424	3,490	164	4,100	-446	3,760	-106
TOTAL	6,914	8,777	-1863	10,676	10,700	-24	11,380	-704	11,710	-1034	11,310	-634
TOTAL COUNTY												
Elementary	4,267	4,934	-667	5,731	5,970	-239	5,990	-259	5,880	-149	5,860	-129
Middle	1,670	2,512	-842	2,670	2,880	-210	3,460	-790	3,320	-650	3,330	-660
High	3,004	3,120	-116	4,532	3,860	672	4,110	422	4,870	-338	4,520	12
TOTAL	8,941	10,566	-1625	12,933	12,710	223	13,560	-627	14,070	-1137	13,710	-777
Notes: <ul style="list-style-type: none"> • Future changes in programs may lead to capacity changes. • Shaded areas indicate actual or projected deficits. • Projections from <u>Forecast 2015</u>, the report of the Comprehensive Plan Forecast 2015 Committee, adopted by the York County Board of Supervisors January 17, 1996. 												

Table 4

According to these projections, school enrollment will continue to grow for the next fifteen years, peaking at approximately 14,100 students in the 2009-10 school year. The increase in births through 1995 will be reflected in a growing elementary school enrollment through the year 2005 and elementary enrollment will begin to rise again after 2010 – five years after births are projected to rebound. Steady growth in the elementary schools will fuel increases in the middle school population, where enrollment is projected to continue to grow through 2005 – with accelerated growth in the 2000-05 period – and decline thereafter. Middle school enrollment is projected to peak at 3,460 in the 2004-05 school year. This represents an increase of one-third over 1995-96 enrollment. Similarly, high school enrollment will continue to grow through 2010, fueled by steady growth at the middle school level. High school enrollment is projected to reach almost 4,900 – almost a 50% increase over 1994-95 enrollment – in 2010 before turning downward. Lower County schools will bear the brunt of this growth. Having reviewed the projections, it should be noted that total enrollment for the month of September 1998 was 11,454. This is a clear indication that, although revised downward from 1992 projections, the Forecast 2015 projections made in 1996 may be overstated.

CITIZEN INPUT AND PLANNING POLICIES: SCHOOLS

Maintaining the quality of the school system is a top priority of York County's citizens. Schools were ranked higher than any other type of community facility on the survey. Furthermore, "building more school classrooms" ranked fifth among overall County goals on the survey. The survey also asked citizens to rank three alternative methods of alleviating school overcrowding in order of preference. The three options given were 1) changing school attendance zone boundaries, 2) installing portable classrooms (trailers), and 3) building new permanent classrooms. Permanent construction was the favored choice, followed by shifting attendance zones; portable classrooms were a distant third.

In the absence of any other considerations, building new schools might appear to be the ideal means of addressing school overcrowding and keeping class sizes low, but this strategy may conflict with the citizens' top goal, which is to keep taxes low. Although not the most popular options, attendance zone changes and portable classrooms are much more fiscally prudent ways of dealing with short-term enrollment fluctuations.

Since school enrollment can be so volatile and thus difficult to forecast beyond the short term, it would be neither realistic nor prudent to make school construction recommendations based on long-range

enrollment projections. Six years is an appropriate horizon for school facility planning. Unless there is a remarkable unforeseen increase in enrollment over the projected levels, it appears that no new school buildings or additions will be needed to enlarge capacity in the next six years with the exception of a middle school addition in the lower county.

CITIZEN INPUT AND PLANNING POLICIES: COMMUNITY FACILITIES

According to the results of the citizen input process, County residents favor the addition of new public facilities and services provided that it can be done without raising taxes or user fees. About 54% of the citizens support this position, while another third feel the County should add new facilities and services regardless of whether or not they require a tax increase. Nine percent of the citizens oppose the construction of any new facilities, which they feel would encourage more residential growth.

The Comprehensive Plan Review survey contained a list of eight possible public facilities and asked the citizens to score them based on the level of priority they felt should be placed on each. The results appear in **Table 5** and are illustrated graphically in **Figure 9**. In tabulating the responses to this question, each response was given a numerical score on an ordinal scale of zero to five, with five representing “Very High Priority” and zero representing “No Priority.” The overall mean average of scores was 2.72 with a standard deviation of 1.63, so in general, any average score greater than 2.72 is at least a *rough* indicator that the citizens generally support it. Any scores that differ from the mean by more than one standard deviation are considered to be unusually high or low. For this reason, scores lower than 1.09 or higher than 4.35 would be of particular significance; however, there are no such scores. With regard to the types of new facilities that should be built, education, parks and recreation (particularly passive), and law enforcement appear to be areas of particular need. Facilities for which there does not appear to be much strong demand among the citizens include satellite County offices and a golf course at New Quarter Park.

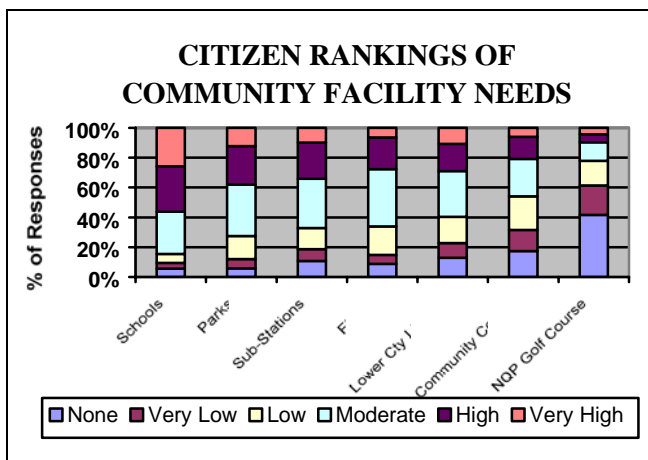


Figure 9

COMMUNITY FACILITY SURVEY RESPONSES	
Facility	Average Score
Schools	3.52
Parks for Passive Recreation	3.05
Satellite Sheriff's Sub-Stations	2.89
Athletic Fields	2.70
Lower County Library	2.64
Community Recreation Center	2.24
Satellite Offices	1.96
New Quarter Park Golf Course	1.30

Table 5

A VISION FOR COMMUNITY FACILITIES

York County should be a community where the citizens feel safe from crime, receive prompt and effective emergency services when needed, and have convenient access to public facilities at appropriate locations to serve them economically and efficiently.

COMMUNITY FACILITIES GOALS AND STRATEGIES

GENERAL

- 1 Coordinate the location and timing of public facilities in recognition of existing and anticipated needs and characteristics--including the age distribution and location--of present and projected future populations.**
 - 1.1 Use the Comprehensive Plan to guide the budgeting of County funds for capital improvement projects.
 - 1.2 Annually review and update, with a resolution from the Planning Commission to certify its conformance with the Comprehensive Plan, the six-year Capital Improvements Program.
 - 1.3 Provide public buildings that set an example for quality development in the County.
 - 1.4 Provide regular, ongoing review, maintenance, and repair of all public buildings.
- 2 Avoid wasteful duplication of effort in the construction and operation of public facilities.**
 - 2.1 Where feasible, cooperate with neighboring localities to establish and maintain regional public facilities for the use of residents of multiple jurisdictions.
 - 2.2 Design public buildings to accommodate a variety of uses.

COURTS AND GOVERNMENT OFFICES

- 3 Maintain historic Yorktown as the seat of County government.**
- 4 Make optimum use of existing court and office space.**
 - 4.1 Develop a space-saving computer-based method of storing and retrieving County files and records.
 - 4.2 Develop a pilot program to test the feasibility of allowing some County employees to work from their homes (i.e., telecommute) using modern technology.

DETENTION AND ENFORCEMENT

- 5 Provide Sheriff's facilities to accommodate manpower levels sufficient to provide prompt and effective crime protection, prevention, and law enforcement to all areas of the County.**
 - 5.1 Evaluate the need for and feasibility of establishing Sheriff's substations in strategic locations, such as the upper County, Lackey, and Tabb.
- 6 Provide detention/correctional facilities of sufficient capacity to house securely and safely the County's future adult and juvenile inmate population.**

FIRE AND RESCUE

7 Provide fire stations to accommodate manpower levels sufficient to provide prompt and effective fire and emergency medical response to all areas of the County.

- 7.1 Locate and design fire stations in such a way as to provide opportunities for expansion of service as necessary based on future population growth and development patterns.

8 Maintain a five-minute average fire and emergency response time to at least 90% of the County's land area.

- 8.1 Continue to cooperate with neighboring localities and area military installations through mutual emergency aid agreements providing for the sharing of resources in the event of a major fire or other disaster.
- 8.2 Provide greater opportunities for the training of County fire and rescue personnel.
- 8.3 Consider the needs of the Fire and Rescue Service with regard to roadway access and water availability prior to approval of development plans and in all decisions regarding utility extension and roadway construction.

LIBRARIES

9 Achieve higher levels of excellence in library service.

- 9.1 Expand the number and range of library books, tapes, periodicals, and other materials as necessitated by population growth, public demand, and technological changes.

10 Provide convenient library service to all areas of the County.

- 10.1 Continue the current practice of contributing funding to the Williamsburg Regional Library system in exchange for service to York County residents.
- 10.2 Provide state-of-the-art on-line access to the library services of York County.

PARKS AND RECREATION

11 Provide for a range of recreational facilities and activities adequate in number, type, size, and location to accommodate the needs of County residents.

- 11.1 Complete implementation of the "school/park" concept to enhance recreational use of school sites.
- 11.2 Develop a comprehensive parks and recreation master plan to coordinate the long-range acquisition of sufficient acreage for additional recreation facilities and public access to waterfront areas to meet the existing and future demands for both public and private recreation programs.
- 11.3 Develop a community center with meeting rooms, recreational facilities, kitchen facilities, and multi-purpose rooms.
- 11.4 Provide for the particular needs of the young, the elderly, and the physically and sensory challenged when planning for recreational facilities.
- 11.5 Consider the recommendations of the Hampton Roads Planning District Commission (HRPDC) Regional Shoreline Study for increasing public recreational and boating access to waterways.
- 11.6 Under the direction of the Parks and Recreation Advisory Board, explore the feasibility of

- developing athletic fields on the County's two former landfill sites, and
 - expanding existing recreational facilities.
- 11.7 Identify and recognize private and other non-County facilities and programs that help meet the recreational demands of County residents.
- 11.8 Promote the provision of open space and recreational facilities in new residential development.
- 11.9 Explore the feasibility of a public boat launch site on Chisman Creek.
- 12 Increase use of New Quarter Park**
- 12.1 Open New Quarter Park to the general public for both passive and active recreation purposes on a regular basis.
- 12.2 Develop a master plan for New Quarter Park to provide additional facilities consistent with the goals of the Chesapeake Bay Preservation Act and the Chesapeake 2000 agreement.
- 13 Ensure that athletic fields and other recreational facilities are well-maintained**
- 13.1 Take athletic fields out of use on a rotating basis.

SCHOOLS

- 14 Provide a learning environment that is conducive to the education of all present and future school-age children in the County.**
- 14.1 Consider the general boundaries of residential neighborhoods and their proximity to schools in establishing school attendance zones.
- 14.2 Review school enrollment projections every three years.
- 14.3 Before approving rezonings and planned developments, consider their potential impact on the school system so as to minimize school crowding.
- 14.4 Provide a cafeteria and gymnasium in every school.
- 14.5 Provide regular, ongoing review, maintenance, and repair of school buildings.
- 14.6 Support and strengthen the vo-tech school program with private sector assistance in the development of the school curricula.
- 14.7 Provide for regional alternative education programs.
- 15 Achieve and maintain the following overall student/classroom ratios and program capacity guidelines at each school:**

<u>SCHOOL LEVEL</u>	<u>STUDENT/CLASSROOM RATIOS</u>	<u>PROGRAM CAPACITY GUIDELINES</u>
Elementary:	22:1	350-700 students
Middle:	23:1	700-1000 students

High:**25:1****1200-1800 students**

- 15.1 When feasible, alleviate school overcrowding through revisions to school attendance zones as long as there is excess school capacity at the appropriate grade level in the system.
- 15.2 Install portable classrooms to alleviate **temporary** overcrowding (i.e., three years or less).
- 15.3 Alleviate **long-term** overcrowding by optimizing school capacity through permanent additions to and modifications of existing schools.
- 15.4 Build new schools if and only if capacity deficits are projected to exceed the minimum program capacity level at the appropriate grade level for five or more years.
- 15.5 Encourage future magnet programs, if any, to be located where excess capacity exists.

16 Optimize use of school facilities and grounds.

- 16.1 Maintain the formal written agreement between the School Board and the Board of Supervisors providing for the sharing of recreational facilities on school grounds and setting specific terms for their use.

17 Promote lifelong learning.

- 17.1 Participate with neighboring localities in providing for regional “continuing education” programs for adults – such as the Regional Partnership for Continuing Education and Peninsula Workforce Center at Thomas Nelson Community College – in York County and throughout the Peninsula.

ECONOMIC DEVELOPMENT

INTRODUCTION

Business and industry make a positive contribution to the fiscal health of a community both by creating jobs for the residents and by contributing local tax revenues that exceed the cost of providing public services to such development. These excess tax revenues can then be used to help pay for the public services required by the County's residents while helping to keep residential taxes to an acceptable level.

In the face of uncertainty surrounding the future of Federal and State financial assistance, York County must be prepared to place a greater reliance on locally-generated revenues. This need is compounded by a growing County population that will continue to desire excellent public services. In order to accomplish these objectives without dramatic increases in real estate tax rates, a comprehensive analysis was completed which determined that a real property tax assessment ratio of 30% non-residential property to 70% residential property (Public Service Corporations excluded) would provide a desirable balance at the ultimate build-out of York County. This represents an increase from the present percentage of non-residential real property tax assessment of 19%.

York County has experienced considerable growth in its economic base since the adoption of the Comprehensive Plan in 1991, attracting over \$70 million in commercial and industrial development, including both new construction and expansion of and alterations to existing construction. The County's economic growth can be seen in various economic indicators. Retail sales have increased by 75% since 1991, while employment has grown 21% (2500 new jobs created) and the average wage has increased by 12%. This is attributable largely to the nationwide economic boom that began in 1992 but also to specific actions taken by the County and the IDA that have enabled York County to reap the benefits of this boom.

The County and the IDA have made significant investments in infrastructure since 1991, particularly in the Economic Development Priority Areas designated in the 1991 Comprehensive Plan, both to encourage new businesses to locate in the County and to retain existing businesses. These include the extension of public water and sewer to the Lightfoot area, dedication of County funding to the extension of Fort Eustis Boulevard, and the construction of a 60,000-square foot industrial shell building within the 182-acre York River Commerce Park.

SUMMARY OF EXISTING CONDITIONS

Economic Trends

York County has experienced long-term economic growth during the post-World War II era, beginning in the late 1950s with the development of the Amoco refinery and the Virginia Power Yorktown Power Station and continuing in the 1970s and '80s with the development of the Bypass Road corridor and of several new shopping centers to serve a growing residential population. Spurred by a second retail boom, York County's economic growth in the 1990s has surpassed that of its neighbors throughout the metropolitan area. York County attracted nearly \$100 million worth of commercial and industrial development from 1990 through 1996, creating almost 1,600 new private sector jobs and, although the government still dominates the jobs base with a 29% share, helping the County to make the transition from a public sector-based economy to one that is increasingly reliant on the private sector. Between 1990 and 1996, the

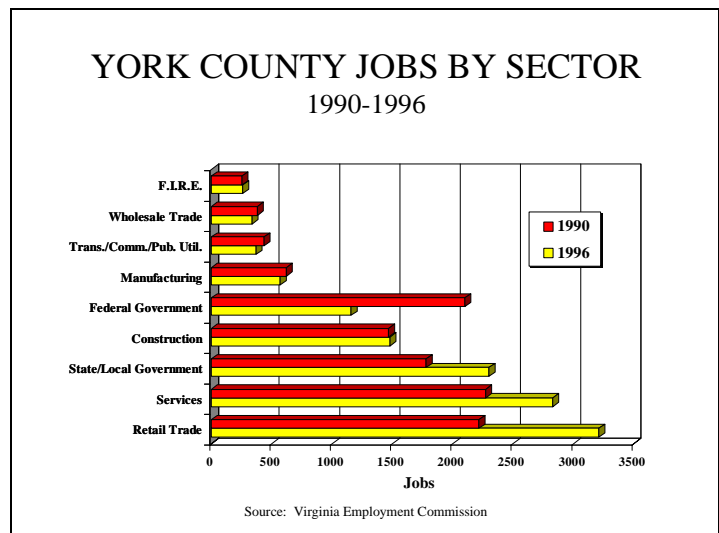


Figure 10

County's employment base has grown by almost 9%, and *private sector* employment has grown **19%**. Wages have lagged, however, because most of the new jobs have been in the relatively low-paying retail trade and services sectors while the number of well-paying Federal jobs has declined. The average weekly wage in the County increased by 6.5% between 1991 and 1996 but actually *fell* by 7.8% when adjusted for inflation.

The retail boom has boosted taxable sales by over \$100 million. Taxable retail sales in York County have skyrocketed in recent years, increasing 60% between 1991 and 1997. Adjusted for inflation, this represents a sizable increase of 25% in five years. As a result, York County's share of Peninsula retail sales increased from 8.7% in 1990 to 10.9% in 1997. Most of the sales growth in recent years has been in the General Merchandise Group, where sales more than doubled between 1990 and 1997.

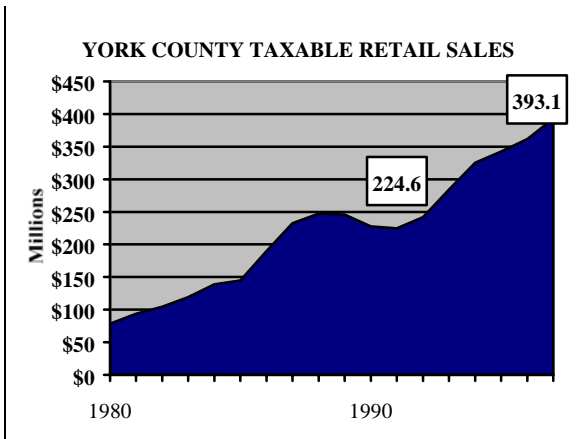


Figure 11

Tourism has not benefited significantly from this economic growth. Although average annual motel occupancy rates have been fairly stable during the 1990s, motel revenues declined for four consecutive years before turning upward again in 1995. Between 1988 and 1996, the County's share of Peninsula motel revenues dropped from 12.3% to 9.2%.

Business growth has had a strong impact on the County's tax base. Total tax revenues generated by commercial and industrial development almost doubled between 1990 and 1995, increasing from \$10.4 million to \$19.4 million. Though substantial, York County's economic growth during the 1990s has been largely overshadowed by residential growth. Consequently, the residential share of the County's real property tax base grew slightly (from 67% to 68%) from 1990 to 1995, while the residential share of the County's *total* tax base increased from 43% to 45%.

Economic Opportunities And Constraints

Businesses consider a variety of factors when making locational decisions. To attract new businesses *and* to retain existing ones, York County must concentrate on exploiting its opportunities while minimizing its constraints.

- York County has a well-educated and highly trained labor force, with high school graduates who continually rank at or near the top in the region as well as many highly trained military retirees.
- York County offers good access to the Interstate highway system, with three full I-64 interchanges located entirely within the County and close proximity to another four interchanges. In addition, the planned extension of Fort Eustis Boulevard from Route 17 to Goodwin Neck Road will provide a direct interstate connection to 182 acres of undeveloped industrial land. Another Economic Development Priority Area of the County where access needs to be improved is the area south of Victory Boulevard. Extension of Commonwealth Drive from Route 171 to Route 17 would open up a large section of vacant industrial property to development.
- For air transportation, the Peninsula is served by Newport News/Williamsburg International Airport and is within an hour's drive of Norfolk International Airport and Richmond International Airport, which offer many more flights. All three airports are considering expansion plans.
- York County has made a significant investment in providing public water to the Lightfoot area to attract economic development, but there are other areas that have a strong potential for economic development provided that the infrastructure is in place. These Economic Development Priority Areas are shown on Map 4 and include the Lightfoot area, the Camp Peary interchange, the Mershon-Royalls and Egger

tracts in the upper County, the Virginia Power property on Old York-Hampton Highway, and the Victory Boulevard/Commonwealth Drive area.

- York County offers a favorable tax rate and wage rates that are below the State and regional averages.
- The Industrial Development Authority in partnership with the County and Virginia Power, has built a 60,000-square foot industrial shell building on Old York-Hampton Highway that is being marketed to businesses in search of a site.
- Unlike older central cities that face the task of reversing negative images, York County's natural locational and aesthetic advantages result in a favorable image for the County, which has the highest net migration rate in the metropolitan area and offers a pleasant living environment for employees.

CITIZEN INPUT AND PLANNING POLICIES

York County's citizens strongly support efforts to attract new economic development into the County, with more emphasis on tourist-related commercial, office, and light industrial development and less emphasis on retail and heavy industry; based on the Comprehensive Plan Review Survey results, these efforts are supported by three-fifths of the residents. Furthermore, in the survey the citizens ranked "Attracting new businesses into the County" as the fourth-most important overall goal for the County. Of the three options presented in the survey regarding steps to take to achieve this goal, the most popular – supported by 40% of the population and by 65% of those who support economic development – is extending public utilities to unserved, undeveloped areas designated for economic development. Least popular was to ease zoning regulations – such as landscaping requirements and sign regulations – for economic development. Except in the case of small-scale home occupations, such development should be well buffered from residential areas, although small neighborhood businesses may be permissible in proximity to residential neighborhoods.

In devising a strategy for attracting economic development, it is necessary to target those types of businesses that will return the greatest benefits to the County in terms of tax revenue, jobs, the environment, and the quality of life. As illustrated in **Figure 12**, different types of economic development have different advantages and disadvantages based on their varying fiscal, employment, and environmental impacts.

Retail

Commercial retail development generates the most tax revenues and has a moderate effect on job creation. Retail jobs, however, offer an average weekly wage of slightly over \$200 and are the lowest-paying jobs of any category. Retail development generally has a low environmental impact. It does not generate significant air or water pollution, but the need for extensive automobile parking greatly increases stormwater runoff. This can increase the pollutants entering stormwater outfalls and possibly exacerbate stormwater management problems in low-lying areas of the County where flooding is a problem. Such development generates more traffic than any other type of development and therefore should be limited to major arterial roads designed to handle such traffic. It should also be noted that retail development will be guided by demand, which, with the exception of tourist-related retail, is largely a function of residential growth.

Office

Office development is similar to retail in its environmental impact. Trip generation figures are somewhat lower for offices, but extensive parking requirements remain. The impact of both retail and office development could possibly be alleviated by increased investment in public transit facilities, such as rail transportation. Not only would highway construction needs be reduced but the runoff problems associated with vast amounts of impervious surface would be lessened as well. Office development generates higher tax revenues and job creation than does light industry and does so in a much more aesthetically pleasing environment. However, with the exception of management and scientific/technical jobs, office development still lags behind manufacturing in average wage rates for less-skilled workers.

Industrial

Gross tax revenues generated by industrial development are lower than for office or for retail, and the employment impacts are comparable. However, industrial wages, especially in the manufacturing sector, are typically well above average. Light industrial development involves considerably lower levels of employment, but the wages are typically above average. Traffic generation also lower, but there can be considerably more truck traffic.

General or *heavy* industry is, of course, most often identified with air and water pollution. Although EPA standards have lessened the impact of heavy industry, the County must continue to exercise caution that short-term fiscal needs do not eclipse long-term quality of life considerations. Traffic impacts of general industry vary greatly depending on whether a particular industry is labor-intensive or capital-intensive. Given the existing highway constraints in the County's Goodwin Neck General Industrial corridor, it would be prudent to emphasize capital-intensive industry in this area until Route 105 is extended to Goodwin Neck Road.

Summary

All of these considerations lead to the conclusion that a balanced approach should be taken with regard to land use and real estate development. In essence, the high tax-generating attributes of retail development can be balanced against the aesthetic appeal of office development and the typically higher wages associated with industry. Each type of non-residential development has its place in an overall economic development strategy. Consequently, great care must be taken to ensure that the land made available for each type of development is suited to such development with regard to such considerations as visibility, access, utilities, environmental sensitivity, and compatibility with nearby development. Retail development, for example, should be limited to major arterial roads that can handle the high traffic volumes. Traffic generation for industrial development is lower, but there is considerably more heavy truck traffic, requiring that these activities be located along major thoroughfares. These activities should be located along roads capable of handling such traffic and should not have to be accessed through residential areas. Office development is more compatible with residential development and can be used as a buffer between residential areas and more intense types of development.

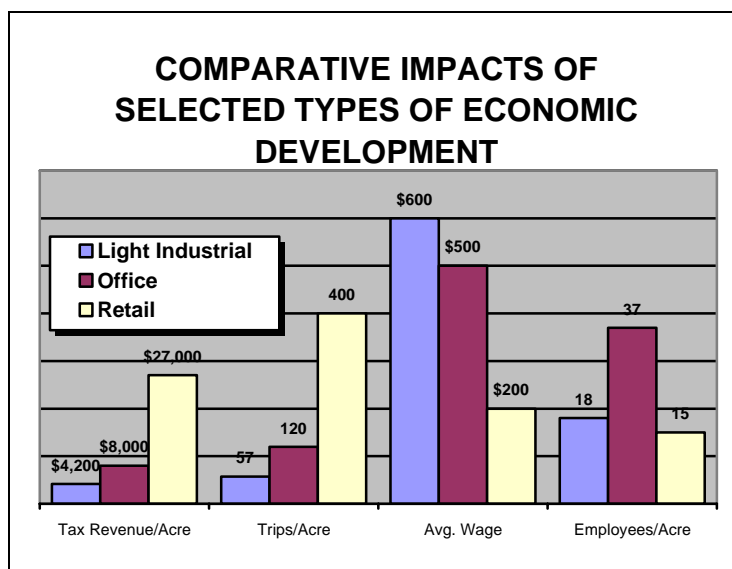
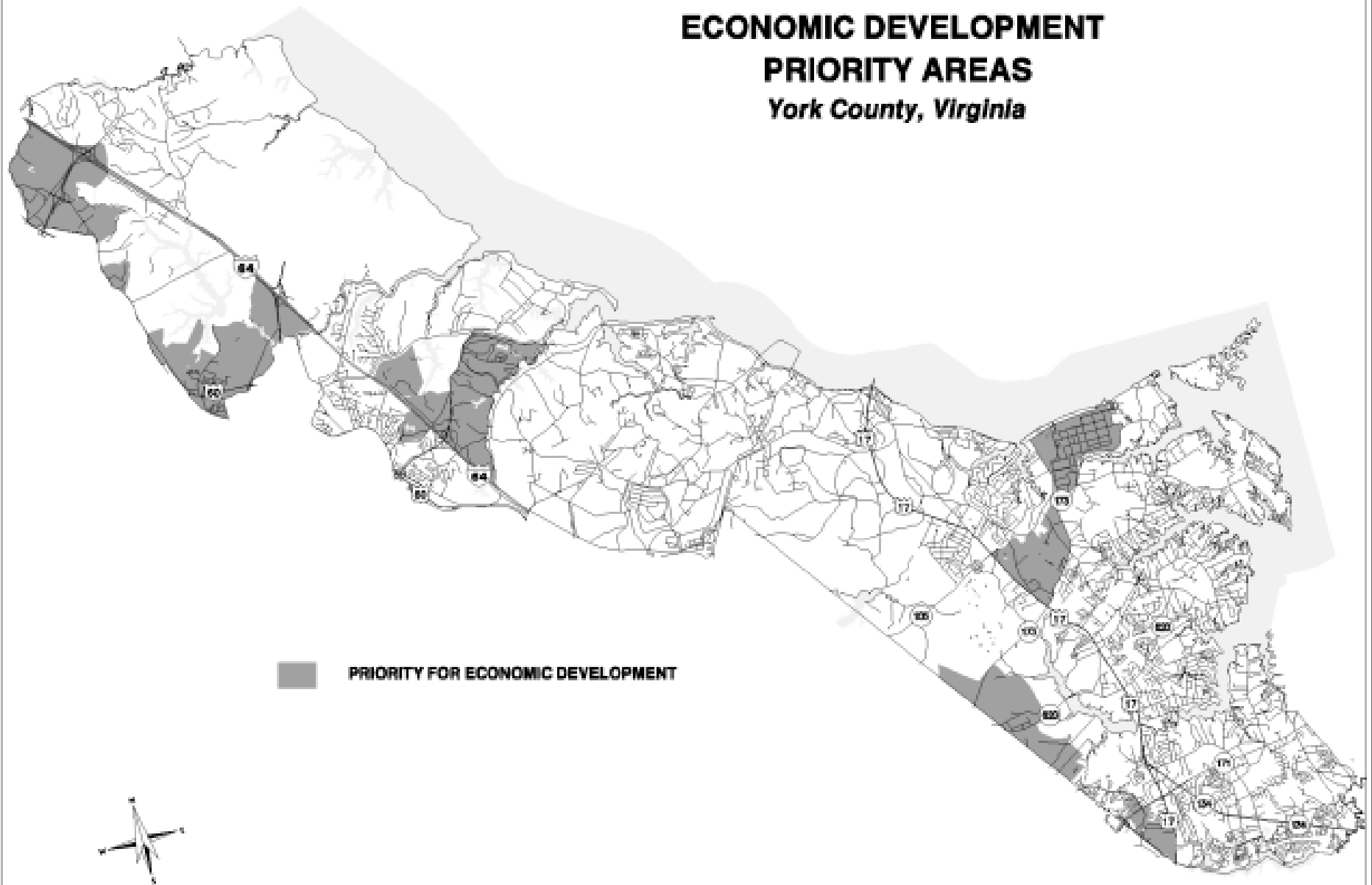


Figure 12

York County's desire to attract new businesses that provide good jobs must be tempered with the recognition that the County is limited by macroeconomic forces that are beyond its influence. Statewide, according to the Virginia Employment Commission's projections, the major employment growth sectors, at least through the year 2005, are expected to be services and retail trade, followed by government, construction, F.I.R.E. (Finance, Insurance, and Real Estate), and wholesale trade. The manufacturing sector, in contrast, is expected to shrink. Clearly, the competition for high-wage light manufacturing businesses in Virginia will be keen. Moreover, in today's global marketplace, York County must realize that competition for economic development is not just local or even statewide; rather, it is national and worldwide. It is not enough for a locality to work to enhance its relative attractiveness for economic development within the region. York County must also work *with* neighboring jurisdictions to promote the *entire* Hampton Roads region.

ECONOMIC DEVELOPMENT PRIORITY AREAS

York County, Virginia



November 05, 1999
Prepared by York County
Computer Support Services

York County's economic base has been growing at a steady rate for many years, but this growth has been more than offset by rapid residential development. Clearly the County will need to attract even more economic growth to counteract the negative fiscal impact of residential growth. York County has many attributes – including an outstanding labor force, a highly regarded school system, a relatively low tax rate, and a pleasant living environment – that give it a competitive advantage over other localities as a business location. The County must capitalize on these assets while working to remove obstacles that hinder economic development. Clearly, the most significant obstacle is the lack of adequate public utilities at key potential business locations, particularly along Interstate 64. The challenge facing York County is to offer prime locational opportunities to those light industrial and office concerns that provide the desired quality of development. Business pays a higher proportional share of the County's bills than residential development without generating large public service demands. If York County is to pursue a favorable mix of residential and non-residential development, it must offer what business wants and what is already being offered in an intensely competitive market. In order to pursue a balanced tax and employment base, the County must assume an aggressive stance relative to economic development. The public sector must join with, and perhaps in some instances precede, the private sector in extending mainline public water and sanitary sewer service to key economic priority areas. York County is ideally situated to attract high-quality, environmentally sensitive economic development if the County is prepared to address the needs of the marketplace through public investment in infrastructure and appropriate land-use designations.

A VISION FOR ECONOMIC DEVELOPMENT

York County should be a community with a healthy and diverse economic base that provides well-paying jobs and generates sufficient revenue to pay for the service needs of both businesses *and* the citizens without detracting from the natural environment or the overall quality of life.

ECONOMIC DEVELOPMENT GOALS AND STRATEGIES

- 1 Expand York County’s tax base in accordance with the following targets:**
 - **Increase the commercial and industrial proportion of York County’s total tax revenue to 50%.**
 - **Increase the combined share of nonagricultural civilian employment represented by the Manufacturing, F.I.R.E. (Finance-Insurance-Real Estate), Transportation-Communication-Public Utilities, and Wholesale Trade sectors.**
 - 1.1 Participate with the private sector in the development of two or more business/industrial parks in the County, with primary emphasis on the following:
 - 1.1.1 Constructing industrial shell buildings in strategic locations as market opportunities arise.
 - 1.1.2 Improving vehicular access and assisting in the cost of public sewer and water extension to Economic Development Priority Areas.
 - 1.2 Assist existing businesses with sewer and water extensions that will facilitate their retention and/or expansion.
- 2 Enhance the long-term visual attractiveness of the County’s arterial roadways.**
 - 2.1 Encourage the adaptive re-use of existing vacant commercial properties by utilizing all available tools and techniques, such as offering performance-based tax and regulatory incentives.
 - 2.2 Continue to require landscaping and, to the extent practical, the retention of existing trees and vegetation in all new development and redevelopment.
 - 2.3 Undertake public improvements to the York County segments of Williamsburg area corridors, including Richmond Road, Bypass Road, Second Street, and Merrimac Trail.
- 3 Increase visitation to York County.**
 - 3.1 Continue the Yorktown revitalization effort with initial emphasis on public improvements to the historic village of Yorktown and other historic sites in the County.
 - 3.2 Participate in the development of events and facilities designed both to bring visitors into the area during the shoulder seasons or off-season and to encourage visitors to remain longer.
- 4 Increase public awareness of the importance of economic development to York County.**
 - 4.1 Publish at least one article in each issue of the Citizen News publicizing business and its importance in York County’s economy.
 - 4.2 Develop a “Focus on Business” segment as a regular feature on the “County Courier” program on York County’s cable channel 36.

5 Expand job opportunities for York County's high school graduates.

- 5.1 Promote and support linkages between the secondary and higher education systems and business and industry to ensure that the needs of both employers and potential employees are being addressed.

6 Promote York County as an attractive location for economic development.

- 6.1 Publicize the high quality of the County's labor force as an inducement for prospective new businesses in the County.
- 6.2 Refine the IDA's database of available nonresidential properties for marketing purposes.
- 6.3 Support the development of state-of-the-art telecommunications facilities in appropriate locations in the County.
- 6.4 Actively work with regional entities and local colleges and universities to develop and promote regional strategies and plans that will benefit the economic well-being of York County, the Virginia Peninsula, and Hampton Roads.
- 6.5 Foster mutual communication and cooperation among the County, the IDA, and the York County business community.
- 6.6 Aggressively pursue the conversion of surplus state and federal lands for economic development.
- 6.7 Negotiate with the Commonwealth of Virginia to convert the State Fuel Farm on Penniman Road for an economically beneficial use.
- 6.8 Continue to replenish the Industrial Development Authority's Capital Fund for economic development.

7 Exploit, upgrade, and extend existing rail linkages in York County to promote industrial and warehousing uses.

- 7.1 In concert with the U.S. Navy, determine the feasibility of modernizing and using the Cheatham Annex spur line to serve privately held industrial property adjacent to it. If determined feasible, preliminary engineering for such modernization should be performed.

8 Eliminate unnecessary delays in the review of economic development projects.

9 Encourage creativity in the design of economic development projects.

- 9.1 Provide opportunities for the mixing and integration of different types of uses--both business and residential--within a single development under a coherent overall master plan.
- 9.2 Review the Zoning Ordinance for opportunities to allow greater flexibility in the design of commercial and industrial projects, particularly at strategically located nodes.

ENVIRONMENT

INTRODUCTION

The environment is the sum of all parts; it encompasses our entire surroundings, the land we live on, the air we breathe, and the water we drink. Blessed with lush vegetation, 207 miles of shoreline, rolling hills, and bluffs, York County is an area of great natural beauty. It is also an area where these and other natural features pose many challenges to development. Development regulations in York County seek to encourage the proper use, management, and/or protection of sensitive and unique lands and waterways in the County that contribute to the economy of the region and the environmental quality of the County. They are not meant to preclude development or use of these areas but rather to ensure that any development that occurs is undertaken in recognition of environmental qualities and conditions.

Since the adoption of York County's Comprehensive Plan in 1991 and the revised County Zoning Ordinance in 1995, which was the subject of wide public discussion, the projected build-out population of the County was significantly reduced. While these changes will have a positive impact on the environment there are issues at both the state and federal level which have the potential to affect future development in the County

SUMMARY OF EXISTING CONDITIONS

AIR QUALITY

In general air quality in York County is good and is expected to remain so during the period covered by these revisions to this plan. York County has only two major sources of air emissions – the Amoco Refinery and the Virginia Power Station – and four federal facilities classified as minor sources.

Air quality in the County is regulated through implementation of the federal Clean Air Act. This legislation is reflected in regulations promulgated by the federal Environmental Protection Agency (EPA) which in turn are enforced by the Virginia Department of Environmental Quality through the State Implementation Plan (SIP). In this process National Ambient Air Quality Standards (NAAQSs) are enforced through permits for certain stationary sources and by other regulations affecting the operation and maintenance of certain mobile sources.

York County is part of the Hampton Roads Air Quality Region, which is currently in compliance with all applicable NAAQSs. Until recently this region was listed as a marginal non-attainment area for ozone (smog) but the EPA recently reclassified the region as an attainment area. As a result of this action York County could consider any industrial/commercial growth as long as proposed facilities meet the new source performance standards and the emissions would not cause a violation of the existing NAAQSs.

However, it is anticipated that continued tightening of standards by the EPA will probably result in more severe future emissions control limits on existing sources, prohibition of new sources of emissions and/or programmatic controls to reduce mobile emission sources.

LAND

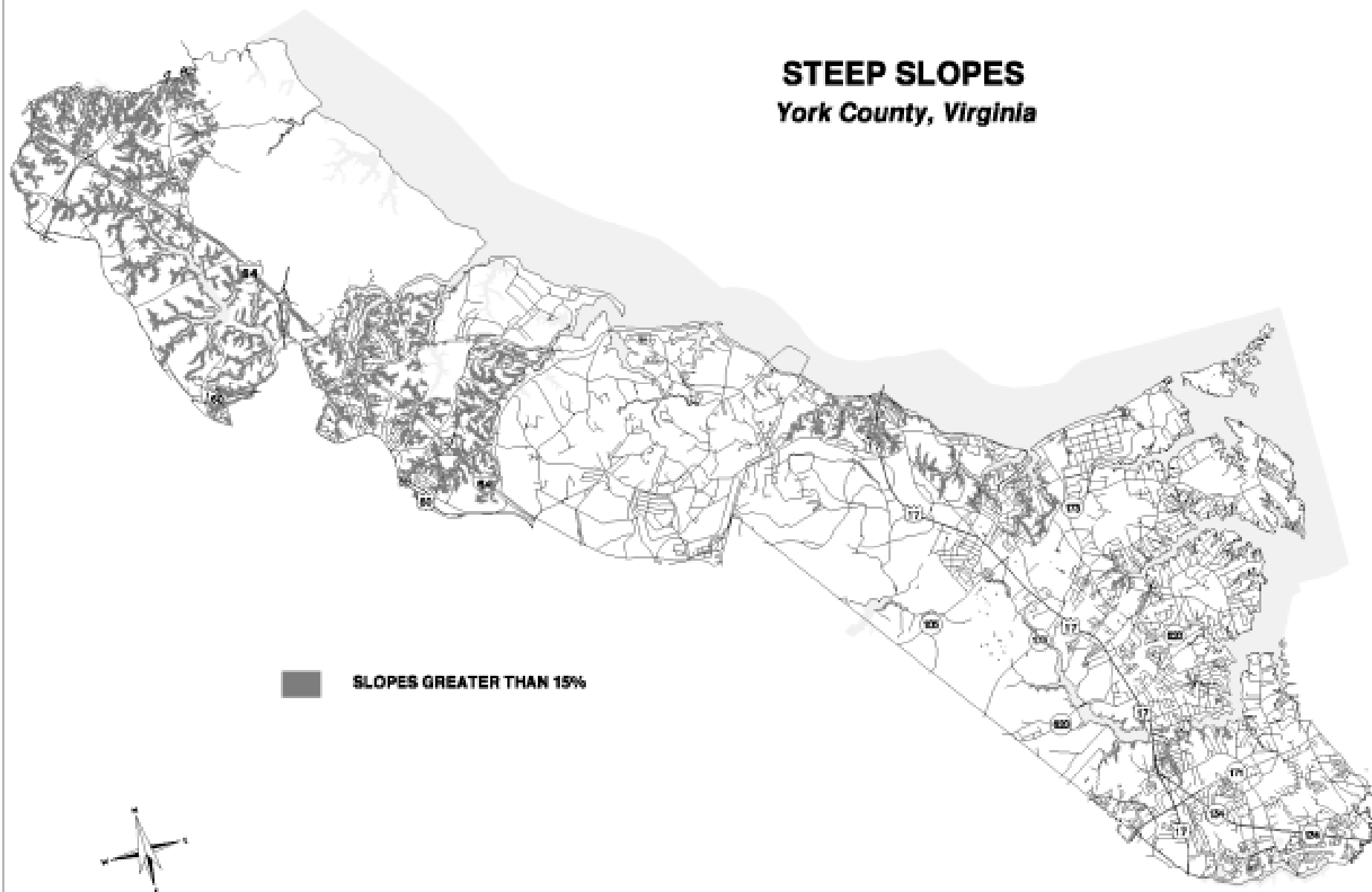
Topography

The topography of land in York County varies from generally low, flat land with high water tables in the lower County to rolling terrain with well-drained soils in the northern reaches at elevations of approximately 100 feet. The Steep Slopes map shows those areas in the County with slopes greater than 15%, which are subject to potential erosion and special Zoning Ordinance regulations to ensure the integrity of these slopes.

Soils

STEEP SLOPES

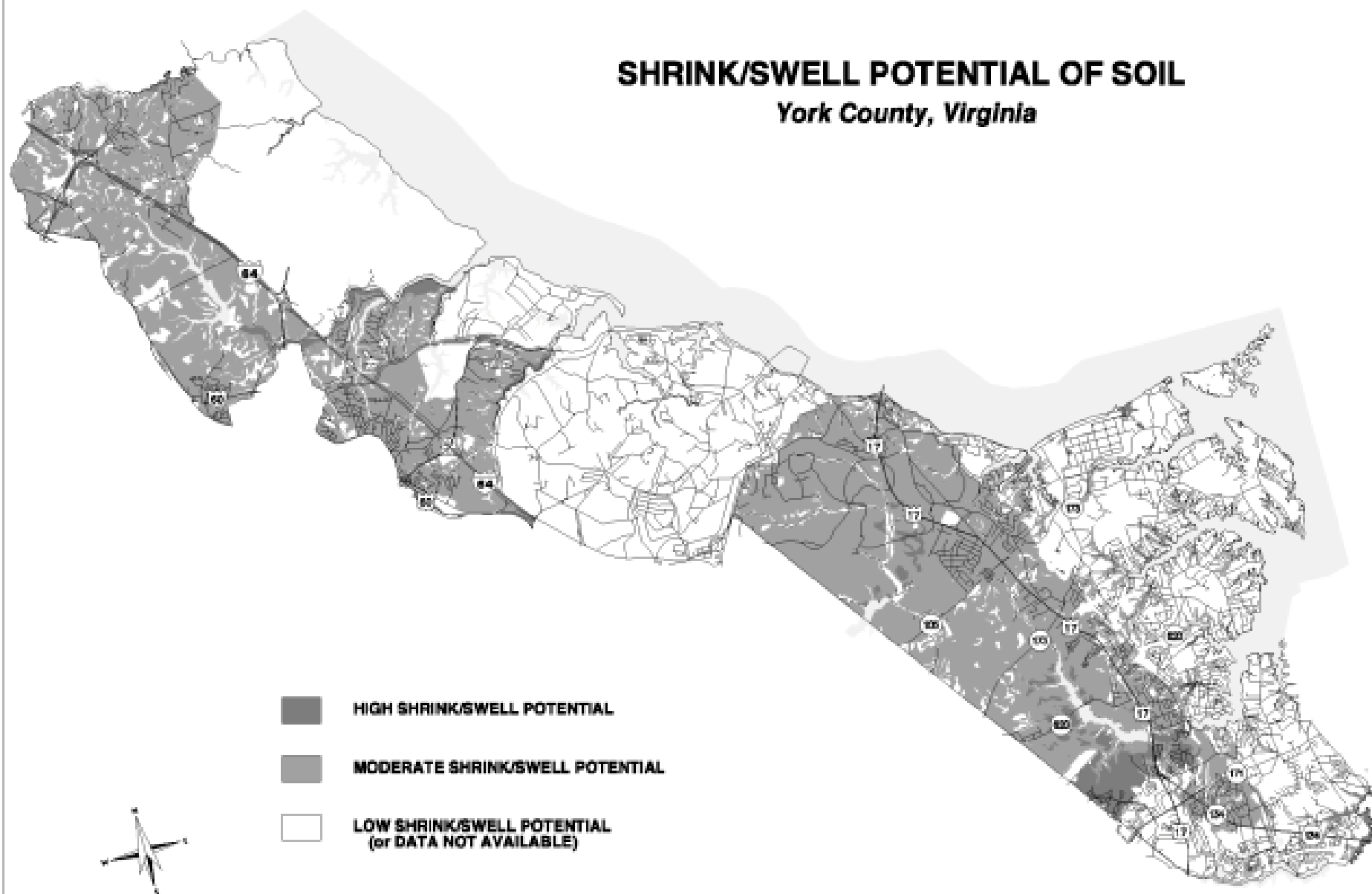
York County, Virginia



November 05, 1999
Prepared by York County
Computer Support Services

SHRINK/SWELL POTENTIAL OF SOIL

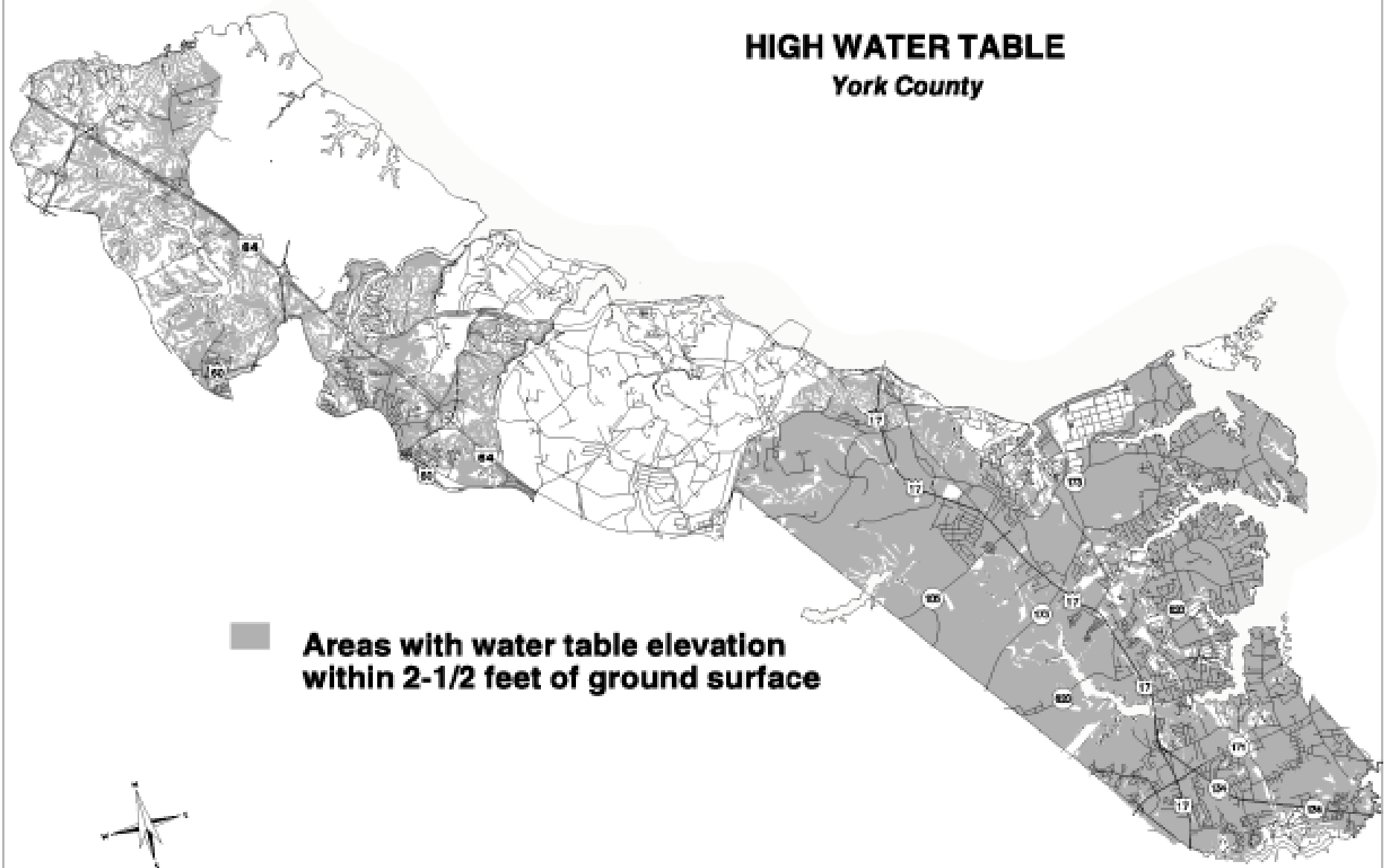
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HIGH WATER TABLE

York County



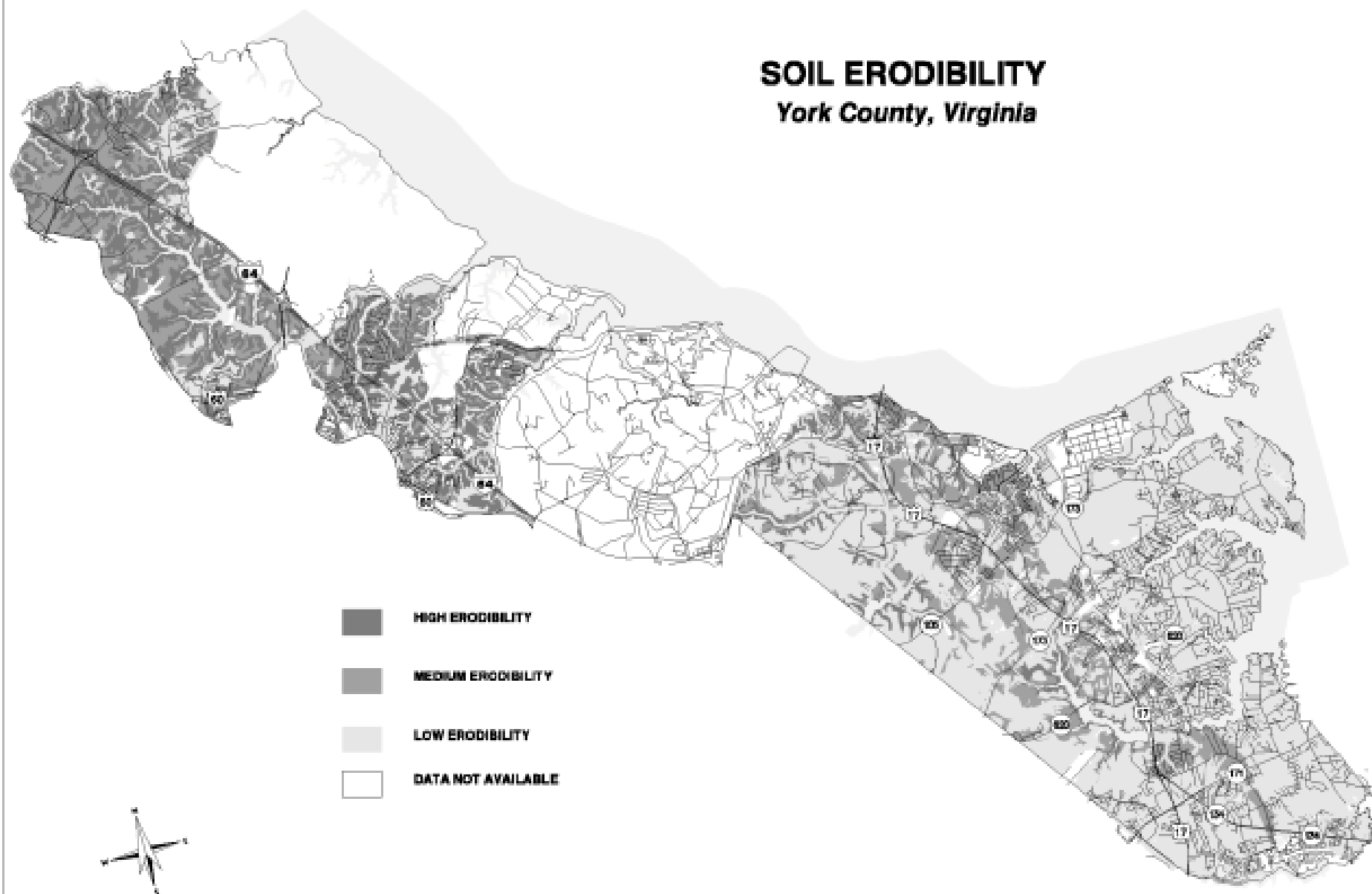
**Areas with water table elevation
within 2-1/2 feet of ground surface**



October 14, 1997
Prepared by York County
Computer Support Services

SOIL ERODIBILITY

York County, Virginia



November 05, 1999
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There are six main soil categories in the County as defined by the Virginia Soils Conservation Service. The different soil types dictate limitations on construction techniques required for successful development in each area. A significant issue that has surfaced in the past several years has been testing and construction requirements associated with shrink-swell soils. To date there have been no major problems in York County but neighboring James City County has experienced major shrink-swell issues.

A significant portion of the County has a high water table defined as being within 2½ feet of the ground elevation. The High Water Table Map indicates those areas that have such ground water elevations. In addition, much of this high water land has been classified as hydric, which means that they stay saturated for enough time during the growing season to develop anaerobic conditions. This soil characteristic is significant in making wetland determinations.

In addition, almost the entire County is characterized by soils with severe limitations for septic systems. System failures have been reported by the Health Department in various areas of the County. This does not necessarily mean, however, that a septic system will not function properly in a particular area; for site-specific conditions, on-site surveys and samples must be obtained. The combined characteristics of a high water table, slope, permeability, and flood potential make the proper functioning of septic tanks difficult in the lower County.

Erosion and Sedimentation Control

Adequate erosion control measures will minimize site sediment runoff and, as these sediments also tie up phosphorus and nitrogen, such control results in the reduction of nutrients to the receiving waters. The County's Erosion and Sediment Control Ordinance, amended and re-adopted in 1991, requires that all land disturbances greater than 2,500 square feet meet County standards relative to the installation of control systems such as silt fences, straw bales, sediment basins, and check dams to control soil loss.

The Colonial Soil and Water Conservation District provides assistance to Peninsula localities on the conservation of soil, water, and related natural resources. The District staff also works with the agricultural community in preparing conservation plans and advising farmers on proper land management. A member of the York County Board of Supervisors serves as a liaison representative to the District to ensure joint coordination of soil conservation efforts.

WATER QUALITY

York County, for the most part, enjoys high-quality water in both its fresh water and brackish water systems. The protection of water systems in Virginia is the responsibility of the State Water Control Board and its regulatory agency the Department of Environmental Quality and to some extent the State Board of Health. Some specific issues relating to these systems are discussed below. More detailed technical information about water quality, shoreline and streambank erosion, and waterfront access can be found in a separate companion report entitled Charting the Course for the Chesapeake Bay, prepared in 2001 by County Environmental and Development Services Department and Planning Division staff.

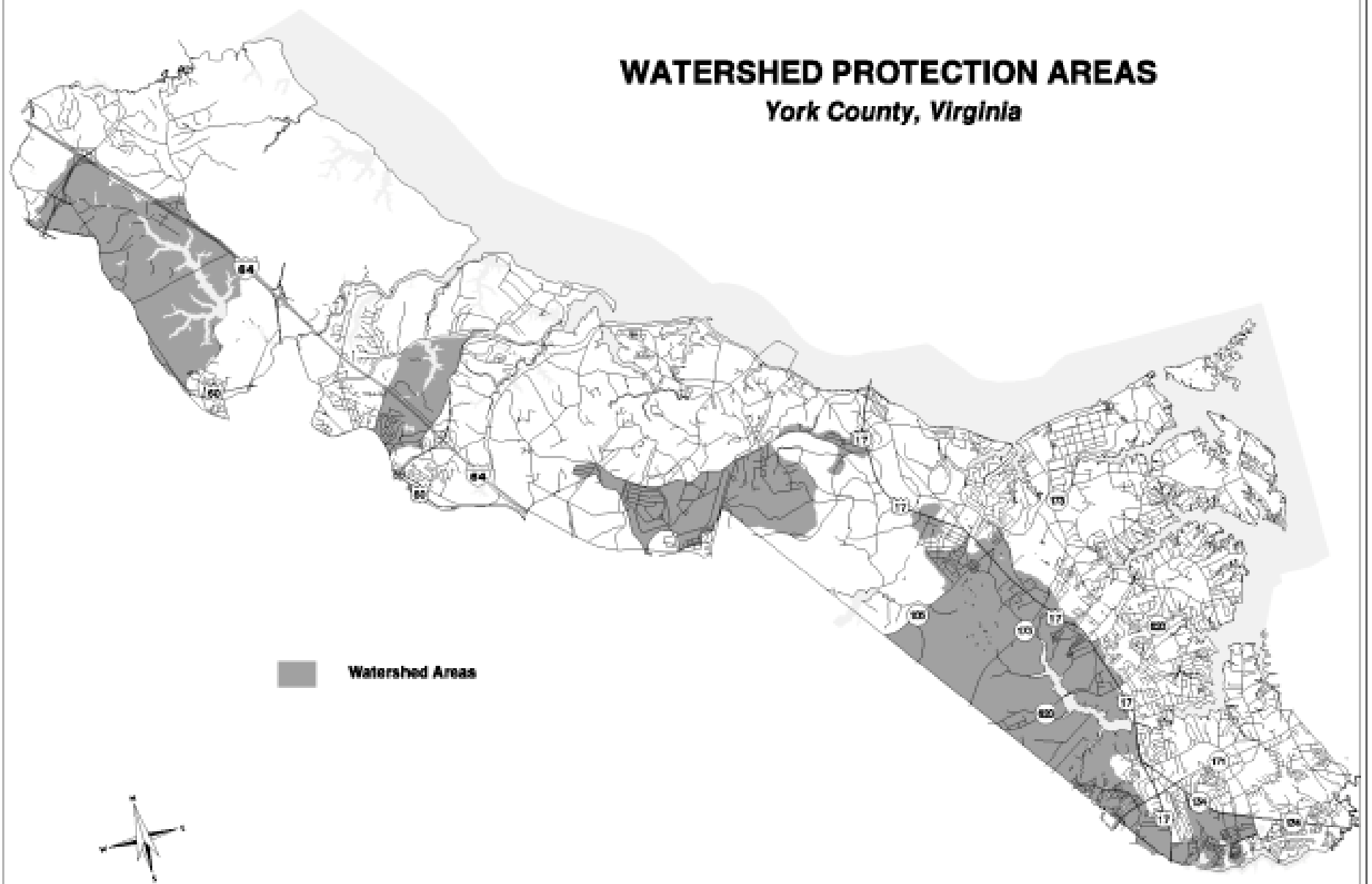
Fresh Surface Water

Most of the fresh surface water in the County comes from the Harwoods Mill, Waller Mill, Lee Hall, Big Bethel Reservoir and Jones Pond. These five drinking water supply reservoirs are protected by watershed protection programs and the Watershed Management and Protection Area overlay district provisions contained in the County's Zoning Ordinance (see the Watershed Protection Areas Map). They all have high quality water except for the Big Bethel Reservoir, where urbanization of the watershed has resulted in less than optimal water quality in the reservoir. The Big Bethel Reservoir is located in an area that is not conducive to effective runoff control because of the high degree of development. This reservoir's use for potable water supply will likely be discontinued in the future. The majority of County citizens receive their drinking water from surface water reservoirs.

Ground Water

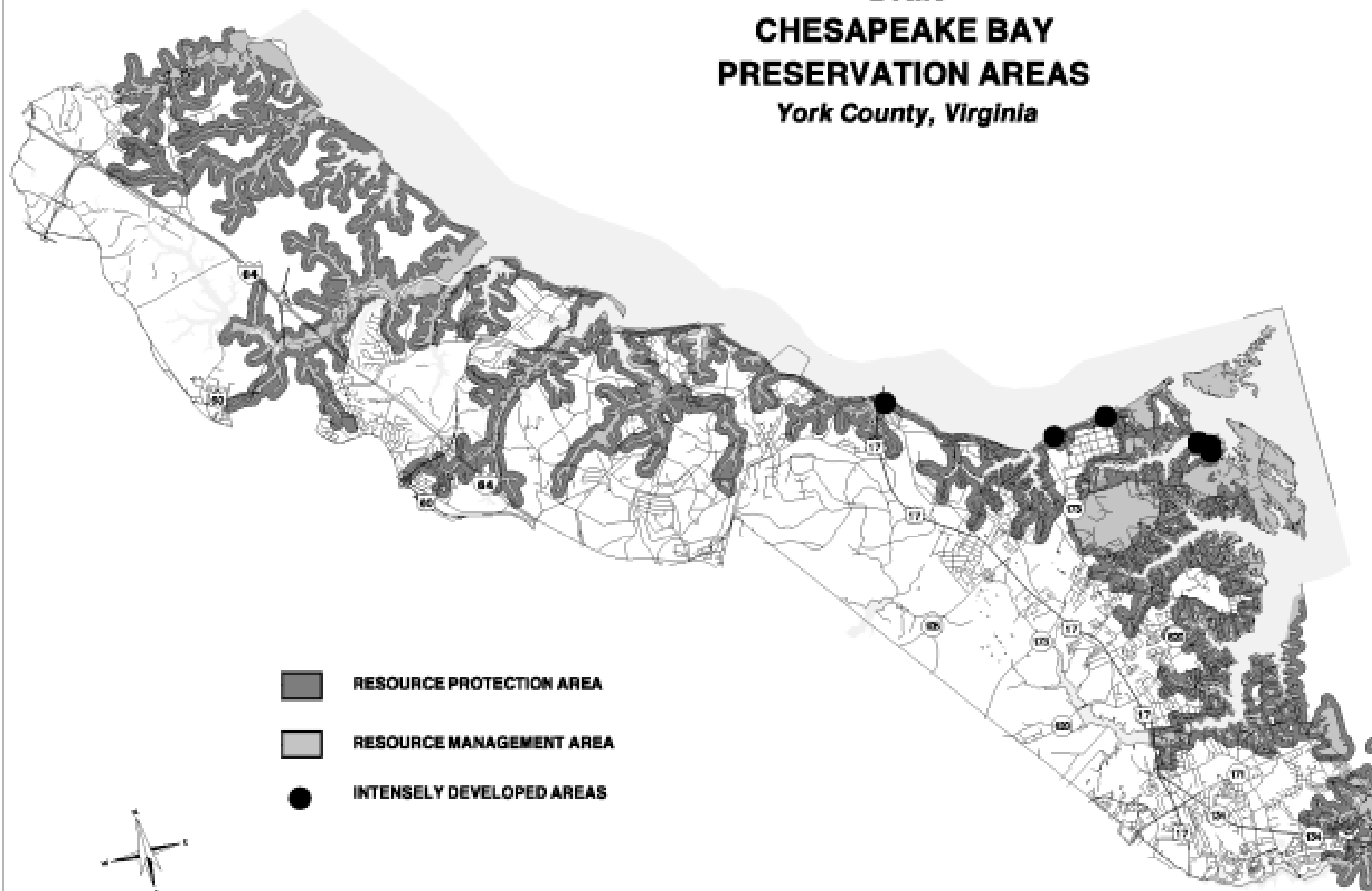
WATERSHED PROTECTION AREAS

York County, Virginia



November 05, 1999
Prepared by York County
Computer Support Services

Draft
CHESAPEAKE BAY
PRESERVATION AREAS
York County, Virginia



November 05, 1999
Prepared by York County
Computer Support Services

Ground water is directly related to surface water and is itself an important drinking water source. It is contained in underground formations called *aquifers* that store, disperse, and transmit water. The ground water in York County consists of an unconstrained aquifer underlain by six confined aquifers. The three lowest aquifers, the upper, middle and lower Potomac, have been declining an average of two feet per year for at least the past twenty-five years, largely because of increased production from large ground water users such as the paper mill in West Point and food processors on the south side of the James River. The County's five wells and many homes in the upper County utilize the Chickahominy Piney-Point aquifer.

Brackish Water

The water quality of the York River and its estuaries in York County is acceptable for full body contact. The only significant problem is high fecal coliform counts in some areas that preclude direct marketing of shellfish. In general, these high levels are attributable to septic systems operating in areas with high water tables where the inadequate distance between the bottom of the drain field piping and the water table does not provide sufficient detention time for the required bacterial reduction. The County has an ongoing program based on a priority system driven by environmental and public health needs to install sanitary sewer systems in these areas.

York County has two industrial dischargers, three municipal dischargers, and two federal dischargers that operate under Virginia Pollution Discharge Elimination System (VPDES) permits for point source discharges to the York River. These facilities meet or exceed federal guidelines established under the Clean Water Act.

The EPA enacted the National Pollution Discharge Elimination System (NPDES) Phase II program in 1999. York County must submit a stormwater discharge permit for compliance with this program by the year 2003. The purpose of these regulations is to address non-point source discharges such as storm water that is a major contributor to the sediment and nutrient loadings in estuaries, rivers and the Chesapeake Bay. These regulations, along with Virginia's concentration on water basin control strategies, are expected to improve the waters around York County.

Chesapeake Bay Preservation Act

To counteract the widespread degradation of the Chesapeake Bay, the Virginia General Assembly adopted the Chesapeake Bay Preservation Act in 1988. The Act requires that land be managed in a manner that reduces pollutants entering the Bay by 40% by the year 2000. Local governments are required to implement the Chesapeake Bay Preservation Act provisions since the regulation of land use and development has traditionally been a function of local government. York County incorporated the regulations into its Zoning Ordinance in 1990. In so doing, the Board of Supervisors designated certain areas of the County as Chesapeake Bay Preservation Areas, which include a Resource Protection Area (RPA), Resource Management Area (RMA), and IDA (Intensely Developed Area). Special development standards apply to these areas to ensure that new development will not result in degradation of the bay. Since the adoption of the County's official Chesapeake Bay Preservation Area Map, the quality of data relating to land and its characteristics has greatly improved with the development of the County's geographic information system (GIS). The map that appears in this plan gives a good depiction of the RPA, RMA, and IDA.

In 1995 the State initiated the Tributary Strategies program to further address the forty percent (40%) pollutant reduction goal established under the Chesapeake Bay Preservation Act. Each tributary or watershed will have a strategy developed by the State to address methods to reach that goal. York County drains to three different tributaries: the York River, the James River, and the coastal area of the Chesapeake Bay. York County actively participates in the York River Watershed Forum, which monitors and advises the State on implementation of the York River Basin Tributary Strategy

The Chesapeake 2000 agreement was signed by the Executive Council (the governors of Virginia, Maryland, Pennsylvania; the Mayor of Washington, D.C.; the U.S. EPA Administrator; and the Chesapeake Bay Commission) in June 2000 to rededicate efforts to the restoration and protection of the

Chesapeake Bay system. The Agreement sets six goals to guide the restoration effort over the next ten years.

Wetlands

Wetlands are commonly associated with swamps and marshes. They are often located in tidal areas but can also be found in other areas as well. Non-tidal wetlands can occur wherever there is sufficient water during the growing season to support hydrophytic plants and hydric soils. Wetlands are unique and important ecosystems performing a variety of valuable functions. In particular, wetlands absorb floodwaters, provide habitat for important marine life, filter pollutants and sediment from upland runoff, and provide the first line of defense against shoreline erosion.

The management of wetlands in York County involves federal, state and local regulatory entities. A Joint Permit Application for any work in a wetland area must be submitted to the Virginia Marine Resources Commission (VMRC) for distribution to the County staff and Wetlands Board, the Virginia Department of Environmental Quality (DEQ), and the U.S. Army Corps of Engineers...

The York County Wetlands Board enforces the County's Wetlands Ordinance, reviewing requests for bulkheads, riprap, beach nourishment, etc. in tidal areas,

The Army Corps of Engineers regulates activities in waters of the U.S. The DEQ is currently developing Draft Regulations to implement the Virginia Nontidal Wetlands Act of 2000. The goal of the Virginia regulatory program is to achieve "no net loss" of wetlands acreage and function.

Wetlands in York County are shown on the Wetlands Map. Many of the County's wetlands, including the Goodwin Islands and the Grafton Ponds, are considered to be unique environmental features and are described by the Virginia Department of Conservation and Recreation in the Natural Areas Inventory of the Lower Peninsula of Virginia. These areas are included in the County's Environmental Management Area Overlay District and are subject to special performance standards and afforded the same water quality protection as Chesapeake Bay Preservation Areas.

Wetlands communities along the County's shoreline are classified into seventeen community types. These communities are categorized into five groups for environmental value. Group One communities merit the highest order of protection whereas Group Five marshes have only a few values of significance. When shoreline erosion control issues are being considered, the ranking system can be used as a tool in making decisions.

Shoreline and Streambank Erosion

Shoreline erosion is a naturally occurring process whereby forces, such as storms and the movement of the tides, cause the boundary between land and water to recede and move inland. Erosion can contribute to the sedimentation and pollution of streams, rivers, and the Chesapeake Bay, resulting in the loss of wildlife habitat and reduced water quality and, when severe, threatening property. The increased rate and volume of stormwater runoff associated with development can accelerate the natural process of erosion.

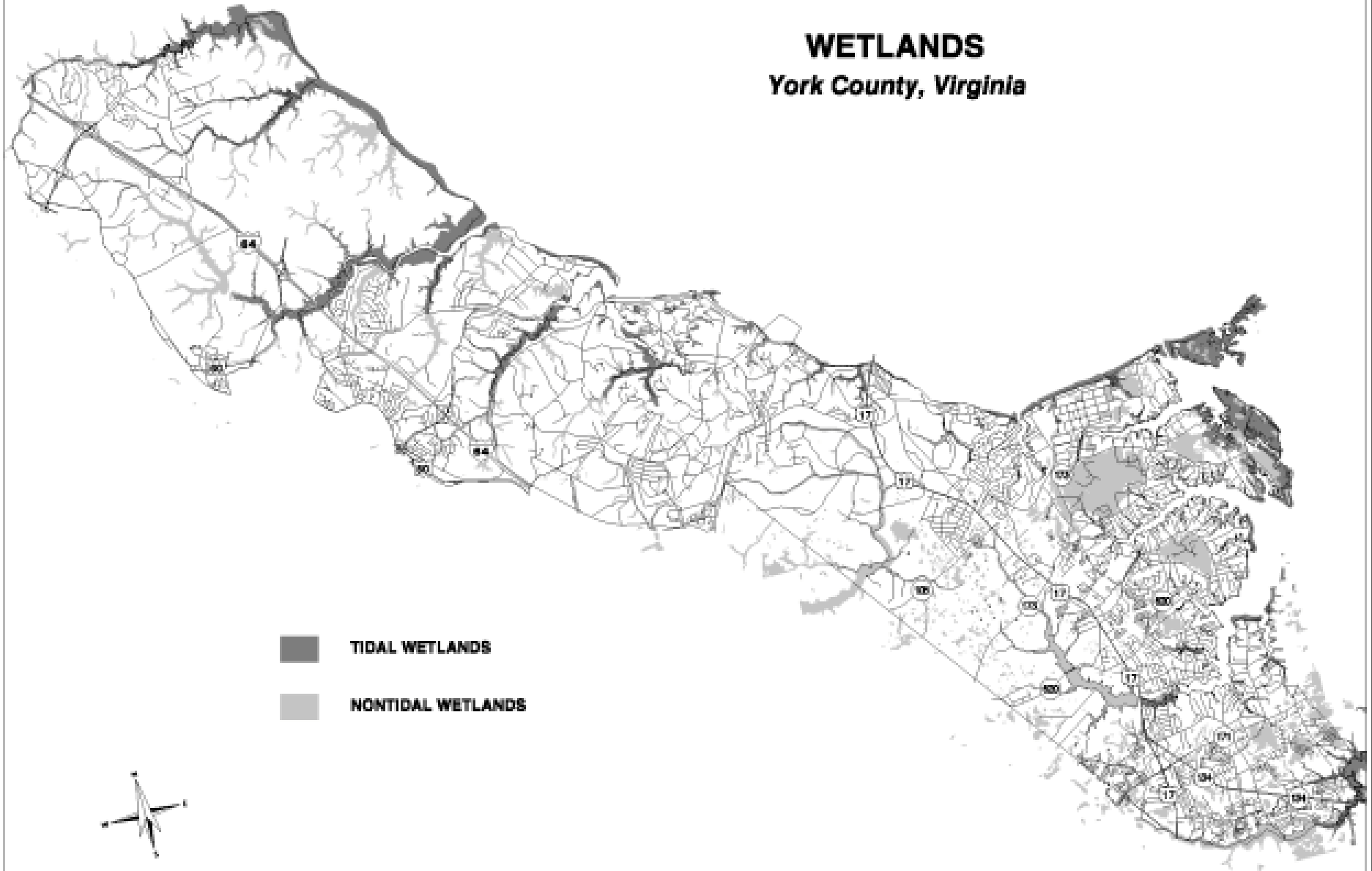
York County encompasses approximately 207 miles of shoreline. The upper County drains via a system of streams and rivers to the southern reach of the York River while the lower County drains via a system of creeks and rivers to the Chesapeake Bay. This section of shoreline includes Back Creek, Chisman Creek, a portion of the Poquoson River, and the western shore of the Chesapeake Bay. Low flat lands with a relatively high water table characterize the topography of the lower County.

The impacts of natural and human activities on the shoreline can be measured by erosion rates, which are used to determine the most appropriate method to address erosion. The Chesapeake Bay Local Assistance Department suggests classifying eroding shorelines as **slight** (less than one foot per year), **moderate** (one to three feet per year), or **severe** (more than three feet per year).

In York County, the western shore of the Chesapeake Bay presents a unique challenge. The only two areas with severe erosion are Reach 109 (the Bay Tree Beach area) and Reach 30 (the Sandbox area west

WETLANDS

York County, Virginia



November 06, 1999
Prepared by York County
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of the entrance to the Thorofare). These areas historically experience erosion rates of up to 3.5 feet per year largely as a result of wave action associated with the physical alignment of the shore and prevailing storms. The Wetlands Board has approved several permits along Reach 30 for riprap, breakwaters, and marsh toe stabilization structures.

The remainder of the County and along the York River the rate of erosion is slight to moderate. The shoreline at the mouth of the river is vulnerable to the high-energy waves generated by the dominant northeast storms. The Yorktown historic area and recreational beach is along this shoreline. There is an ongoing project to stabilize the beach with a combination of methods, including riprap, breakwaters, beach nourishment, and vegetation.

The type of erosion control structure needed in a given situation is guided in part by the rate of erosion. Revegetation and re-grading are the preferred methods of non-structural erosion control in areas of slight erosion. Bulkheads are also considered when the property is small and the distance between development and the shoreline precludes re-grading. Riprap revetments are typically encouraged over bulkheads as they are more effective at dissipating wave energy, have a longer life, and provide habitat for marine life.

The amount of bulkhead and bulkhead in conjunction with riprap decreased in York County by approximately 1,620 linear feet and the amount of riprap increased by 2,160 linear feet between 1985 and 1993. Miscellaneous structures and the amount of unstable shoreline also declined. These trends provide positive evidence that environmentally sound shoreline erosion techniques are being implemented.

One of the County's goals is to protect shoreline property in a cost-effective manner that preserves and enhances shoreline resources, water quality, wetlands, and wildlife habitat. The Wetlands Board works toward this goal by strongly encouraging applicants to obtain assistance from the appropriate state agencies and County staff for shoreline erosion control projects. When shoreline erosion is severe and threatens properties, the Wetlands Board will consider structural shoreline stabilization methods located in wetlands of lesser ecological value. When shoreline erosion is slight to moderate, the Board encourages non-structural measures such as re-grading and re-vegetating. The Wetlands Board encourages coordination of shoreline erosion control projects among properties by mandatory notification of all adjacent property owners, posting of "Wetlands Permit Pending" signs and encouraging group permits. On properties with adequate separation between structures and the shoreline, the Wetlands Board favors regrading/revegetating and riprap revetments over bulkheads. Maximizing the vegetated buffer in accordance with the provisions of the Chesapeake Bay Preservation Act reduces the need for structural controls, which must be considered only a temporary correction for erosion problems. The goal should be to direct future development and redevelopment away from severely eroding shorelines to areas that can be developed without adversely affecting water quality. As stated previously, there are two reaches of shoreline in York County that are classified as severely eroding, Reaches 30 and 109. The remaining undeveloped lots along Reach 30 are zoned WCI (Water-Oriented Commercial Industrial) and are owned primarily by BP Amoco and Virginia Power. Residential development in the WCI zone is not permitted by right or by special use permit. Any future commercial or industrial development must adhere to the CBPA 100-foot setback from the edge of the eroding shoreline. Reach 109, Bay Tree Beach, is zoned RC (Resource Conservation), which is intended for those areas in the County of particular environmental sensitivity. The minimum residential lot area is five acres; therefore, the CBPA requirement for a 100-foot vegetated buffer area will ensure that no development occurs along the eroding shoreline.

In addition to the shoreline areas previously noted, there are streams and ditches in the County showing evidence of deterioration and erosion. Some of these streams are identified in the County's Utilities Strategic Capital Plan. The Board of Supervisors also has formed a Drainage Advisory Committee whose purpose is to assist County staff in identifying drainage problems and prioritizing areas for drainage improvements. The Marlbank Ravine Restoration Project is currently underway utilizing a combination of options, including bioengineering, regrading, revegetating, and, where necessary, piping.

Stream bank erosion, like shoreline erosion, is a natural process, with many of the same negative impacts. Natural factors that contribute to stream bank erosion, are steep slopes and highly erodible soils. Development on steep slopes greater than 15% is regulated through the Zoning and Subdivision Ordinances to ensure the integrity of slopes and waterways.

Stream bank erosion is more often directly related to land use and development than is shoreline erosion. There are streams and ditches in the County showing evidence of deterioration and erosion. Some of the streambank erosion is due to natural causes; however, some is due to upstream development and conventional ditch maintenance. Many of these streams have been identified in the County's Utilities Strategic Capital Plan for restoration. The County's Drainage Advisory Committee works to assist County staff in identifying erosion, flooding and drainage problems and prioritizing areas for improvements.

York County limits stormwater runoff from developed sites to pre-development rates through the strict application of the Erosion and Sediment Control regulations, which require that properties and waterways downstream of development be protected from sediment deposition, erosion, and damage caused by increases of volume, velocity, and peak flow rates of stormwater runoff for certain storm events. Inevitably, however, the volume and duration of stormwater runoff are increased with increased amounts of impervious area. Pursuant to the Erosion and Sediment Control Ordinance, the County requests calculations proving downstream adequacy. When possible, stream banks will be restored to a natural state using bioengineering options with contiguous floodways. Piping will be used as a measure of last resort. In this manner, stormwater management, erosion control, non-point source pollutant, and habitat creation goals will be achieved.

Based on this information, shoreline and streambank erosion are significant issues for York County. The Wetlands Board is doing an admirable job of preventing shoreline erosion while limiting hardening of the County's tidal shoreline. The County has begun a streambank restoration project at Brown's Park in Lackey which will serve as a pilot program for bioengineering techniques. The Utilities Strategic Capital Plan addresses the streambanks that have been targeted for stabilization. In addition, the Drainage Advisory Committee and the County are reviewing erosion and flooding problems to prioritize streambanks not addressed in the Capital Plan.

Flood Zones

York County is in a tidal area with some areas in low and relatively flat terrain. Coastal flooding is a potential hazard, affecting approximately 7,000 acres of land close to coastal streams and creeks. The flat topography of the Seaford and Dandy areas results in flooding during major storms. Through the National Flood Insurance Program (NFIP), property owners can obtain flood insurance through the private insurance industry at a reasonable cost.

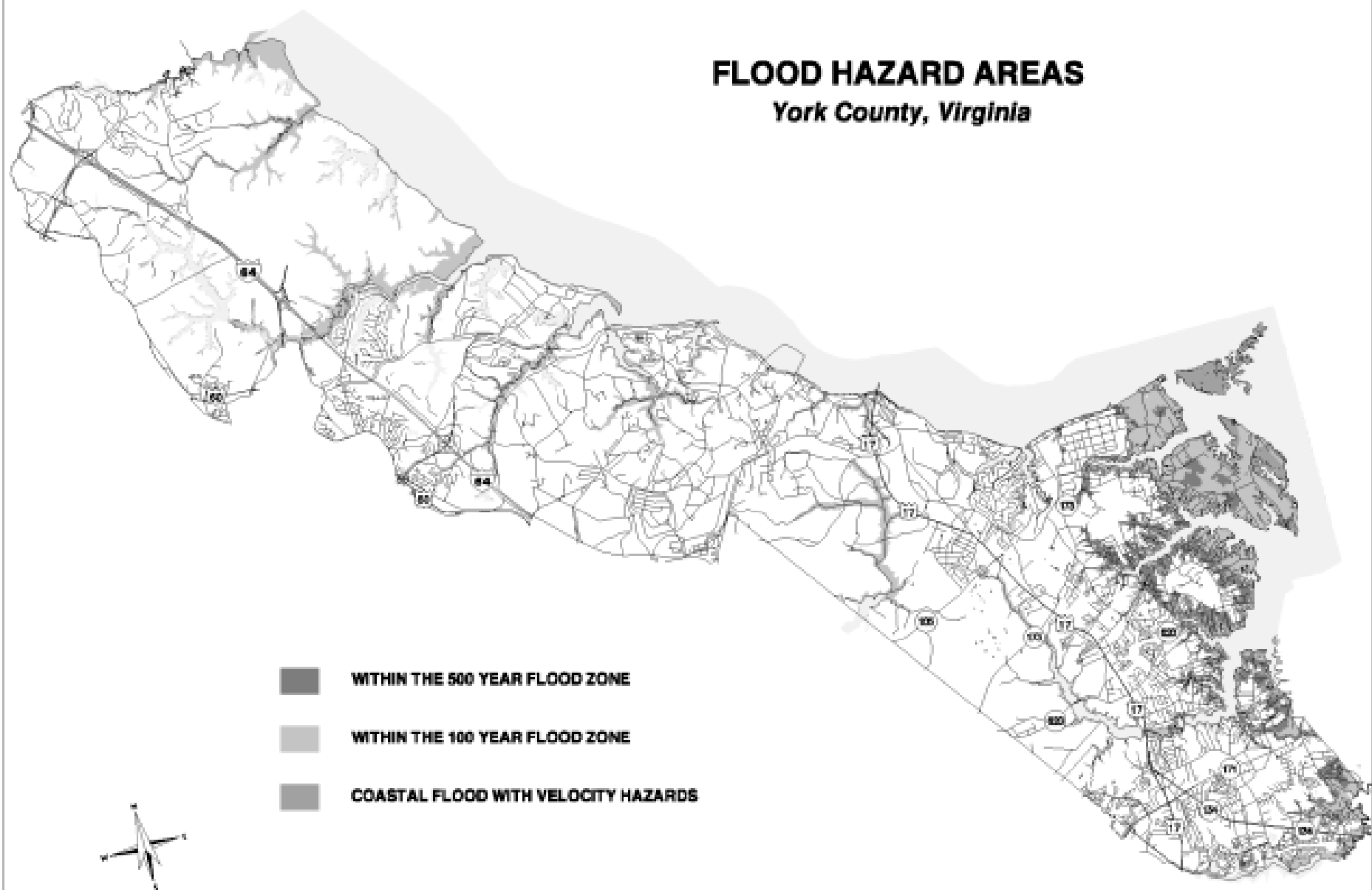
York County established plans and adopted regulations to lessen potential losses from flood damage. Regulations must be consistent with the NFIP. These regulations apply to those portions of a locality which are within the "100-year floodplain." (This means that the probability of a flood occurring is once in 100 years). The Flood Hazard Areas Map shows those areas of the County identified by the Federal Emergency Management Agency (FEMA) as being located in a flood hazard area. Communities participating in the NFIP require newly constructed and substantially improved residential structures in the special flood hazard areas to have the lowest floor elevated above "the base flood level." Non-residential structures must either elevate the lowest floor or design the structure to be watertight. In an effort to reduce losses even further, FEMA has recently developed a voluntary program known as the "Community Rating System" by which communities can augment their existing floodplain protection programs in ways which may reduce loss-payouts should a flood event occur. In return for implementing this, the Federal Insurance Administrator can grant small general reductions in premium rates within the community.

WASTE MANAGEMENT

Since the adoption of the Comprehensive Plan in 1991, and as a direct result of the recommendations contained in that plan, the County's waste management program has changed dramatically. Most significantly, the County initiated a roadside trash pickup program for all single-family detached homes through a contract with a private waste operator. Previously there had been no County trash collection; individual homeowners and homeowners' associations were responsible for contracting out with a private hauler for their trash collection. A curbside recycling program was also established, and a leaf and yard

FLOOD HAZARD AREAS

York County, Virginia



-  **WITHIN THE 500 YEAR FLOOD ZONE**
-  **WITHIN THE 100 YEAR FLOOD ZONE**
-  **COASTAL FLOOD WITH VELOCITY HAZARDS**

November 05, 1999
Prepared by York County
Computer Support Services

debris collection program was initiated during the 1997-98 leaf season. The County has expanded its drop off recycling program to include waste oil, antifreeze, batteries, paper and tires and also participates in the Collection of Household Chemicals Program. The program enable residents to dispose of various chemicals – such as paints, gasoline, brake fluid, pesticides, and drain cleaners – in an environmentally safe manner. These chemicals might otherwise be disposed of via the storm drainage system or be dumped on the ground and possibly contaminating groundwater.

Also since 1991 new Federal and State regulations have gone into effect that would have made it prohibitively expensive for the County to continue to operate a landfill; consequently, the County landfill was closed. At the landfill site, the County has constructed a waste transfer station that is leased to a private operator to receive waste and transport it to approved disposal sites outside the County. There is also a yard waste facility, operated under the direction of the Virginia Peninsulas Public Service Authority (VPPSA), which processes leaves, grass, and woody waste into mulch and compost.

The success of the County's recycling program is demonstrated by the fact that in 1997 York County diverted approximately 42% of its municipal solid waste from the waste stream, well above the State-mandated goal of 25% by 1993.

NOISE

Noise is a growing concern with the addition of new highways and increasing air and automotive traffic. In 1972, Congress established noise emissions standards for new products. The EPA coordinates federal noise research programs and determines whether noise emission standards protect the public health. Although state and local governments do not set standards, noise can be controlled through local regulations and licensing requirements. York County currently regulates noise in public areas and excessive noise from radios, horns, animals, vehicles, and performances.

Aircraft operations at Newport News/Williamsburg International Airport are the principal source of objectionable noise in the County. According to Federal standards, there are some residential areas in the County, most notably the Kentucky Farms subdivision, where noise levels are high enough to be considered so objectionable that residential development is incompatible with aircraft operations. The number of homes adversely affected by aircraft noise is likely to shrink, however, as older, louder jet engines are phased out and replaced as mandated by the Federal Aviation Administration. Moreover, according to the 1997 Airport Master Plan, planned runway extensions will actually reduce noise exposure because of the shift in the aircraft mix from the louder military aircraft to the quieter commercial jets.

The only residentially developed property in the County where Langley Air Force Base (LAFB) aircraft operations generate unacceptable noise levels is in Bethel Manor, which is LAFB housing.

CITIZEN INPUT AND PLANNING POLICIES

The citizens feel the County should place a high priority on preserving and protecting the natural environment, which was ranked in the Comprehensive Plan Review Survey as the third-most important overall goal for the County. Most of the citizens (57%) feel that the environment should take priority over individual property rights when there is a conflict between the two, while about a third believe that environmental regulations are an unreasonable infringement on property rights. The strong support for protecting the environment is also reflected in the fact that a total of 58% of the residents feel that development in environmentally sensitive areas should be either regulated more strictly than ordinary development (37%) or prohibited altogether (21%). About one quarter of the citizens feel that property-owners should be financially compensated for land that cannot be built upon because of environmental regulations, and an additional 8% feel that development of environmentally sensitive areas should not be regulated more strictly than ordinary development.

There are myriad Federal and State agencies that administer a variety of regulations to prevent degradation of the environment. It is not the role of the County government to duplicate these efforts with extraneous regulation. However, as steward of our natural resources, the County government does have a responsibility to do what it can to prevent environmental degradation. A principal role of the County in

protecting the environment is through the regulation of the development and use of land. Not only is land an important natural resource in and of itself, but its development and use also have a significant effect on air and water.

The York County Zoning Ordinance contains provisions to ensure the protection of environmentally sensitive features. Most significant is the Environmental Management Area (EMA) Overlay District, which, as set forth in Section 24.1-372 of the County Code, is intended to “promote the proper use, management, and protection of the vast amounts of sensitive and unique lands which contribute to the economy of the region, and the environmental quality of the County and especially the Chesapeake Bay.” These standards apply specifically to low-lying areas (less than four feet above mean sea level), areas with slopes in excess of 20%, tidal and non-tidal wetlands, Chesapeake Bay Preservation Areas, and areas containing either hydric soils or soils with a moderate or higher shrink-swell potential, and areas identified by the Virginia Department of Conservation and Recreation in the “Natural Areas Inventory of the Lower Peninsula of Virginia.” For any development in these areas, a natural resources inventory and a water quality impact assessment must be provided by the developer, and special performance standards must be met in order for the development to be permitted.

As stated earlier, the Floodplain Management Area (FMA) Overlay District provisions of the Zoning Ordinance regulate construction in flood zone areas. In addition, the Watershed Management and Protection Area (WMP) Overlay District provisions specify development regulations applicable to areas of the County surrounding public water supply reservoirs.

These overlay district regulations are intended not necessarily to preclude development but to ensure that that development which does occur is sensitive to the natural environment. Development and protection of the environment are not mutually exclusive goals. Open space or cluster subdivisions, which are discussed in detail in both the Housing and Land Use elements, are a good example of a development technique that preserves the intricate balance between the natural and built environment.

Another way in which the County is involved is through its public investment decisions, for example, by targeting public sewer extensions toward those areas where the land cannot support septic systems, or by ensuring that public facilities, such as schools and libraries, are located and designed to avoid impacts on environmentally sensitive areas. In these ways, the County can complement ongoing Federal and State efforts in the area of environmental preservation.

A VISION FOR THE ENVIRONMENT

There should be a balance between York County's natural and built environment that positively contributes to the quality of life of both current and future generations.

ENVIRONMENTAL GOALS AND STRATEGIES

GENERAL

- 1 Preserve and protect environmentally sensitive areas and natural resources from the avoidable impacts of land use activities and development.**
 - 1.1 Continue to implement special development regulations to protect natural resources areas, including low-lying areas, areas with steep slopes, tidal and nontidal wetlands, Chesapeake Bay Preservation Areas, areas identified by the Virginia Department of Conservation and Recreation, Division of Natural Heritage in the Natural Areas Inventory of the Lower Peninsula of Virginia, and areas containing hydric or shrink-swell soils.
 - 1.2 Continue to require that development plans identify environmental constraints and opportunities and show how environmental impacts will be mitigated.
- 2 Enhance public awareness and understanding of the importance of environmental conservation and preservation.**
 - 2.1 Consider using public properties, such as parks and watershed areas, as living laboratories to educate school children about environmental conservation and preservation with such activities as nature hikes and observations, environmental experiments, wetlands delineation activities, etc.
 - 2.2 Collaborate with civic groups and community organizations on environmental restoration projects to encourage stewardship.
 - 2.3 Continue to support the Drainage Advisory Committee and provide educational materials concerning environmental conservation and preservation.
 - 2.4 Encourage the School Division to provide, beginning with the class of 2005, a meaningful Bay or stream outdoor experience, such as a field trip, for public school students in accordance with the Chesapeake 2000 Agreement.

AIR

- 3 Improve air quality.**
 - 3.1 Continue to actively participate in all air pollution committees and boards deemed necessary by the Board of Supervisors, such as the Hampton Roads Air Pollution Control District Committee.
 - 3.2 Continue to discourage the recruitment of industries that emit high levels of air pollutants.
 - 3.3 Pursue activities and strategies, including public education efforts, that decrease air pollutants within the Hampton Roads region.
 - 3.4 Prohibit the open burning of leaves and yard debris in proximity to homes and other structures.

- 3.5 Promote alternative modes of transportation that do not rely on single-occupant vehicles, such as mass transit, car-pooling, ride-sharing, bicycling, and walking.

LAND

4 Ensure that land development occurs in recognition of the ability of the land to support such development without environmental degradation.

- 4.1 Promote site design and land development that blends appropriately with natural features and terrain.
- 4.2 Consider working with neighboring localities through the Hampton Roads Planning District Commission to develop a specific carrying capacity model.
- 4.3 Retain natural physical features, forests, and woodland areas throughout the development process.
- 4.4 Maintain tree preservation requirements for all new development.

5 Maintain open space requirements within developing areas for purposes of wildlife habitat and the preservation of ecologically sensitive areas.

- 5.1 Continue to encourage the use of conservation easements as a means of protecting and preserving areas with desirable or sensitive environmental or aesthetic qualities, especially shoreline and groundwater recharge areas.

WATER

6 Ensure the conservation and enhancement of adequate and safe future water supply areas.

- 6.1 Identify potential sources of groundwater and surface water contamination and develop mitigation plans and procedures.
- 6.2 Monitor the septic tank pump-out program and pursue criminal penalties for non-compliance.
- 6.3 Continue enforcement of the requirements of the Watershed Management and Protection Area Overlay District including water quality and vegetative buffers to protect potable water reservoirs.
- 6.4 Support the Virginia Department of Environmental Quality's mandate to prevent destruction of non-tidal wetlands understanding they are important groundwater recharge areas.

7 Ensure existing and proposed public and private access facilities (docks and piers) do not have a negative impact on water quality.

- 7.1 Continue to enforce appropriate methods of construction early in the development process to control sedimentation, pollutant-loading, and stormwater runoff, especially where development takes place in close proximity to water bodies.
- 7.2 Ensure that redevelopment of existing waterfront facilities will reduce non point source pollution and proposed shoreline access will address water quality issues consistent with the Chesapeake Bay Preservation Act.
- 7.3 Encourage community piers in new waterfront housing developments.

- 7.4 Adopt policies to implement the Hampton Roads Planning District Commission (HRPDC) Regional Shoreline Study.
 - 7.5 Implement the guidelines in the Virginia Marine Resources Commission Shoreline Development BMPs Handbook for construction methods and siting criteria.
 - 7.6 Consult the Marina Technical Advisory Program (MTAP), available through the Virginia Institute of Marine Science, on marina siting and design issues related to best management practices, water quality, and technical support for marinas.
- 8 Protect coastal wetlands, marshes, rivers, inlets and other bodies of water from degradation associated with land development.**
- 8.1 Monitor and develop clean-up strategies for illicit discharges.
 - 8.2 Develop and implement a program for re-inspection of Best Management Practices.
 - 8.3 Obtain the stormwater discharge permit in accordance with the NPDES Phase II program.
 - 8.4 Develop and adopt a stormwater management ordinance with water quality requirements.
 - 8.5 Update and continue to rigorously enforce the Erosion and Sediment Control Ordinance to reduce sedimentation and degradation of surface waters.
 - 8.6 Continue to participate in the York River Tributary Strategies effort as a means of improving water quality.
 - 8.7 Reduce the non point source pollutant loading from stormwater runoff on County projects and use indigenous and low-maintenance landscape materials.
 - 8.8 Continue to participate in the Household Chemical Collection System to encourage the safe disposal of chemicals that might otherwise be disposed of via storm drains and dumping.
- 9 Protect shoreline property from erosion in a cost-effective manner that preserves and enhances shoreline resources, water quality, wetlands, riparian buffers, and wildlife habitat**
- 9.1 Encourage applicants for shoreline erosion control projects to seek assistance from the Shoreline Erosion Advisory Service.
 - 9.2 Encourage property owners to utilize nonstructural erosion control measures, such as re-grading and re-vegetation, to address slight to moderate erosion and to utilize structural measures when erosion is severe and threatens property.
 - 9.3 Encourage the coordination of shoreline erosion control measures among adjacent property owners.
- 10 Minimize the need for streambank and shoreline erosion controls.**
- 10.1 Ensure that vegetative buffers are retained, enhanced, or established.
 - 10.2 Ensure that drainage patterns are not altered to concentrate stormwater flow in erodible streams.
 - 10.3 Encourage Low Impact Development and conservation design to reduce impacts to receiving downstream resources.

NOISE

11 Limit noise associated with nonresidential development.

- 11.1 Employ Zoning Ordinance performance standards and other regulatory controls where applicable to minimize noise impacts of nonresidential uses on residential areas.

SOLID WASTE & RECYCLING

12 Achieve a 50% recycling rate.

- 12.1 Encourage recycling by both households and businesses as the preferred means of waste disposal.
- 12.2 Aggressively advertise in local newspapers and the Citizen News the County's solid waste management programs both to inform residents and businesses of program offerings and to educate those already participating in the program.
- 12.3 Expand the list of recyclable items based on participant input and/or market fluctuations.
- 12.4 Expand information/education campaigns to instruct the public on the need for recycling by providing materials to interested businesses, civic and homeowners' associations and any interested party.
- 12.5 Continue to incorporate recycling education into the public school program from elementary school through high school.
- 12.6 Continue to work with the Virginia Peninsulas Public Service Authority (VPPSA) to organize household hazardous waste collection days for materials such as old paint cans, paint thinner, fertilizers and pesticides, etc.

13 Provide for the convenient, efficient, and safe removal and disposal of leaves and yard debris.

- 13.1 Continue the ongoing public information campaign to educate citizens in proper methods of recycling yard waste.
- 13.2 Develop a program to publicly recognize and acknowledge "model" yard waste recycling programs by neighborhoods, groups, and individuals.

14 Expand markets for recycled and recyclable products.

- 14.1 Continue the County purchasing policy emphasizing the purchasing of supplies, where economically feasible, that are made of recycled products and/or are recyclable themselves.
- 14.2 Aggressively market the products of the regional composting facility, including bagged compost material for sale to residents who do not own trucks.

HOUSING

INTRODUCTION

Shelter is a basic human need, but housing encompasses social as well as physical aspects. To a great extent, where we live determines who we socialize with, where our children go to school and where public facilities are needed. Furthermore, the way our neighborhoods are designed can even affect our behavior. Both the physical and social aspects of housing are vital to the planning process.

Residential development in York County is mostly single-family detached, but significant strides toward diversification of the housing stock have been made in the 1980s and '90s. The introduction of new housing alternatives, such as townhouses, duplexes, and condominiums, has increased affordability, making home ownership available to households whose options previously had been extremely limited, or who perhaps had been shut out of the housing market entirely.

Several important changes in housing have occurred since the adoption of the Comprehensive Plan in 1991. The size of the housing stock has increased by 27%, with 4,140 new units built since 1991. As it has grown, the housing stock also has grown more diverse with the construction of over 1,200 townhouses and duplexes and almost 400 apartment units.

There have also been significant changes in housing policy as a direct result of the 1991 Comprehensive Plan. In 1995, the Board of Supervisors adopted a new Zoning Ordinance and Map in accordance with the plan. These actions were taken in response to concerns about rapid growth that began to emerge in the 1980s. Accordingly, both the supply of residential land and the allowable residential densities were reduced, thereby reducing the maximum build-out population – the estimated future population that would occur if all available residential land were developed at its maximum allowable density – from 135,000 to approximately 80,000 residents.

Despite the high rate of growth in recent decades and the County's relatively small land area, there is still residential land left to be developed. As stated in the Demographic Profile and Projections, residential development in York County is projected to continue for many years to come, adding over 9,000 new housing units by the year 2015. Through its development ordinances, particularly the Zoning and Subdivision Ordinances, the County can influence both the amount and type of housing construction that will occur in the future. Such policy decisions will have to consider the County's future housing needs. There is a clear role for the County to plan and steer the type and quantity of housing within its boundaries. While some would let economic factors and the strength of the housing market be the sole determinants of housing availability, markets are not perfect and do not operate in a vacuum. There are certain social goals for the society at large that markets are not capable of addressing. The challenge before the County is to strike a balance between the short-term needs of the housing market and long-term County goals and objectives.

SUMMARY OF EXISTING CONDITIONS

Housing Inventory

There are approximately 20,400 housing units in York County, 69% of which are single-family detached homes. Single-family attached homes (townhouses and duplexes) and apartments (rental and condominium) constitute slightly over a quarter of the housing stock, while mobile homes and other types of units account for 3.4%. On-base military units, 86% of which are single-family attached homes or apartments, represent 7.4% of the County's housing.

Because of the high rate of housing construction in recent years, York County's housing stock is relatively young and of good quality. One quarter of the housing units in the County were built within the past eight years and 44% were built within the past sixteen years. In general, these homes and the lots on which they are located are larger than in surrounding jurisdictions. According to the 1990 census, the average number of rooms per housing unit in the County was 6.5, which exceeds the averages for the metropolitan area and the state in this measure of housing quality.

Minimum lot sizes for conventional subdivisions, as set forth in the Zoning Ordinance for residential zoning districts, range from 13,500 square feet (slightly over three units per acre) to an acre. In areas where public utilities are not available, the minimum lot size increases to 1.5 or 2 acres. The open space or cluster subdivision provisions permit smaller lots but with no increase in density. Smaller lots can also be permitted in planned developments, which must be specifically approved by the Board of Supervisors.

The age, size (both home size and lot size), and quality of the housing stock contribute to the relatively high residential property values in the County. In 1990, York led the entire metropolitan area with a median house value of \$121,600.

2015 LAND USE SUMMARY		
LAND USE DESIGNATION	GROSS ACREAGE	UNDEVELOPED ACREAGE
RESIDENTIAL		
Low Density	12,490	4,070
Medium Density	5,290	1,550
High Density	3,030	720
Multi-Family	1,120	80
TOTAL RESIDENTIAL	21,930	6,420
BUSINESS		
Limited	360	100
General	1,640	410
TOTAL COMMERCIAL	2,000	510
INDUSTRIAL		
Limited	1,000	100
General	2,110	980
TOTAL INDUSTRIAL	3,110	1,080
ECONOMIC OPPORTUNITY	3,830	1,900
CONSERVATION	14,000	NA
MILITARY	20,300	NA
GRAND TOTAL	65,170	9,910

Note: Undeveloped Acreage includes all lands classified as Vacant or Agricultural in the 1999 Existing Land Use Map.

Figure 13

The aggregation of statistical data should not cloud the fact that there is a wide variety of housing in the County, more so than at any time in the past. As illustrated in **Figure 14**, single-family attached homes represent over a quarter of the housing built in the County since 1990. This is important because different types of households have distinct needs and drive the demand for a diverse housing stock. For example, young singles who are just starting their careers are likely to live in apartments, while townhouses and duplexes are particularly attractive to both young couples and older couples. Middle-age couples with children are typically attracted to single-family detached homes with large yards and plenty of room. There are also opportunities in the County for those who choose to live in manufactured housing.

The term "manufactured home" refers to housing units that are manufactured in a factory but require some assembly and finishing at the construction site and meet Uniform Building Code Standards. Manufactured homes represent a declining share of the housing stock because County zoning regulations limit additional placements to locations within manufactured home parks or designated manufactured home subdivisions. There are approximately 25-30 major manufactured home parks in York County, and Whispering Winds has been developed as a manufactured home subdivision.

YORK COUNTY EXISTING LAND USE, 1999				
LAND USE CATEGORY	GROSS AREA (Acres)	% OF GROSS AREA	% OF NON-MILITARY LAND AREA	% OF GROSS DEVELOPABLE LAND AREA
RESIDENTIAL				
Single-Family	13,290	20.3%	29.8%	45.6%
Multi-Family	600	0.9%	1.3%	2.1%
TOTAL RESIDENTIAL	13,890	21.2%	31.1%	47.7%
COMMERCIAL	2,580	3.9%	5.8%	8.9%
INDUSTRIAL				
Limited	260	0.4%	0.6%	0.9%
General	1,240	1.9%	2.8%	4.3%
TOTAL INDUSTRIAL	1,500	2.3%	3.4%	5.1%
PUBLIC/SEMI-PUBLIC	1,220	1.9%	2.7%	4.2%
MILITARY	20,930	31.9%	NA	NA
OPEN SPACE				
Conservation/Recreation	15,470	23.6%	34.7%	NA
Agricultural	1,300	2.0%	2.9%	4.5%
Vacant	8,660	13.2%	19.4%	29.7%
TOTAL OPEN SPACE	25,430	38.8%	57.0%	NA
GRAND TOTAL	65,550	100.0%		

Figure 14

For those who either cannot afford a home of their own or choose to rent, there is a large supply of rental housing in the County. Although York County has one of the highest rates of home ownership on the Peninsula, rental housing represents a sizable 20% share of the private housing market. There are nine apartment complexes in the County, but rental housing also includes single-family detached homes, which represented 29% of the County's renter-occupied units in 1990.

Housing Affordability

The concept of affordability is based on the general rule that no household should have to spend more than 30% of its annual gross income on housing. According to the 1990 census, the proportion of households in York County for which housing was unaffordable was 20%. This was slightly below the average for both the State (21%) and the metropolitan area (26%). Almost a third of the County households for which housing was unaffordable (30%) had annual gross incomes below \$20,000.

In 1996, the average sale price of a new single-family detached home in York County was approximately \$186,000. While this is beyond the reach of many people, there are a variety of more affordable alternatives – such as townhouses, duplexes, condominiums, and resales – that help to make home ownership possible

for the vast majority of County households. When these alternatives are included, the average sale price for a home in the County in 1996 was \$147,000.

A comparison of York County income and home sale data for 1996 shows that, based on the 30% housing cost/income standard of affordability, there is sufficient housing available at almost every income level, with the exception of the 10% of households at the bottom of the income scale. York County's housing affordability problem, therefore, is primarily an income problem affecting approximately one-tenth of the population. The County's Department of Community Services administers a variety of Federal and state programs that are intended to help lower income residents meet their housing needs. These include rental subsidies and housing rehabilitation loans and grants.

In addition, the Planned Development regulations in the York County Zoning Ordinance include *Affordable Housing Incentive Provisions* that are intended to encourage the construction of more moderately priced single-family detached housing. This is accomplished through the reduction or elimination of otherwise applicable planned development open space requirements. In exchange, these provisions require either modular dwelling units or other approved single-family detached dwelling units and establish a maximum unit size, all with the objective of promoting affordability. Several planned developments have been approved by the Board of Supervisors under the Affordable Housing Incentive Provisions. Another affordable housing tool available to the County is provided by §15.1-491.8 and 15.1-491.9 of the Code of Virginia, which authorizes York County to amend the Zoning Ordinance to provide for an affordable housing dwelling unit program which addresses housing needs, promotes a full range of housing choices, and encourages the construction and continued existence of moderately priced housing. This is done by providing for optional increases in density in order to reduce land costs for such moderately priced housing. At this point, as noted earlier, there is sufficient moderately priced housing to meet the needs of all but the lowest-income County residents, and the County has not elected to adopt such a program at this time.

CITIZEN INPUT AND PLANNING POLICIES

Throughout the Comprehensive Plan citizen input process, York County residents expressed a strong desire to slow the rate of residential growth in the County, preferably by keeping residential densities relatively low (i.e., 1-3 housing units per acre). The survey respondents, 69% of whom agreed with this goal, ranked this as the second most important overall goal for the County. Slightly over a quarter (27%) felt that the market should determine the rate of residential growth without interference from the County. When those who supported a slow-growth policy were asked what steps the County should take to achieve this goal, 88% supported low residential densities, while 51% felt the County should purchase land for open space to prevent it from being developed. A smaller proportion (45%) felt the County should assess large, undeveloped tracts of land at less than their full market value as long as they remain undeveloped (i.e., the land use assessment program).

The survey also asked about the County's *maximum build-out population*, which most of the respondents (59%) wanted to remain unchanged, while almost a third felt it should be reduced further. Only 4% of the respondents felt it should be increased. Those respondents who felt that the build-out population should be changed were also asked what it should be. The mean average of responses to this question was 75,100. However, a number of people, perhaps exaggerating to emphasize their strong feelings on the subject, responded that the build-out population should be even lower than the *current* population! When these unrealistic responses are excluded, the average build-out figure rises to 83,260.

With regard to housing affordability, the survey produced mixed results. Three statements were presented and respondents were asked to indicate which of the three most closely reflected their opinion about housing affordability. A slight plurality (34%) felt that the development of single-family detached housing in the County that is affordable to a wider range of households should be encouraged. However, almost as many citizens (33%) felt that plenty of housing is available for lower-income households in surrounding communities such as Hampton and Newport News. A quarter of the respondents felt that townhouses and duplexes are doing enough to bring down the average cost of housing in the County. These results, in their totality, seem to indicate that the citizens generally support the continuation of a range of housing densities and types.

The Zoning Ordinance, the Zoning Map, and the Subdivision Ordinance are the principal vehicles for implementing housing policy in York County. These three documents, which are adopted by the Board of Supervisors, determine how much housing can be built, where it can be built, and, generally, what it will look like. The results of the citizen input process indicate that the citizens support the continuation of the direction established in 1991 and implemented in 1995, which seeks to manage growth and promote housing diversity while emphasizing low densities. Housing construction has indeed slowed since the adoption of the new Zoning Ordinance and Map in 1995, although it is too soon to tell whether or not this is due to these changes. For the time being, the prudent course for the County – for which the citizens have expressed strong support – is to continue the direction of the 1991 Comprehensive Plan.

The emphasis on low densities does not mean that high-density and multi-family housing are not appropriate in some areas of the County. Moreover, low-density residential development is more than just a growth management tool; it helps to enhance the overall quality of life in the County by contributing to the perception of a rural atmosphere. It also reduces the strain on County infrastructure and services and on the environment as well, since much of the land in the County cannot support high-density development because of wetlands, soils, topography, and a high water table. It should be noted that in describing density, “low” and “high” are relative terms. The high-density designation in York County would be considered low density in some neighboring localities. A disadvantage of low-density development is that single-family detached housing tends to have a negative fiscal impact because the number of school children per unit is much higher than for townhouses, duplexes, and apartments. Furthermore, larger houses tend to be found on larger lots (i.e., in low-density subdivisions) and also tend to have more school-age children. As a result, the net fiscal impact per acre of multi-family and single-family attached housing is more positive than for single-family detached housing.

As the citizens indicated, it is important to have an appropriate housing stock to meet the needs of a diverse and constantly changing population. This requires that flexibility be built into zoning and subdivision standards to promote innovation and design creativity. Affordable housing advocates and others have argued that zoning and subdivision regulations increase development costs and thereby drive up the cost of housing. The challenge before the County is to balance the public purpose of these regulations against the cost to the developer (much of which will ultimately be borne by the home purchaser) and the property rights of the landowner. The County should work to identify needless barriers to flexible and creative design techniques and, if there are any, eliminate them.

Flexibility is a key feature of the Zoning Ordinance standards for open space development. The open space or cluster development technique is a tool that provides for reduced lot sizes in exchange for the preservation of significant open space. With this technique, homes are clustered around a large area or areas of commonly owned open space. Because of the large proportion of open space, the overall development density is no different from what it would have been if developed as a conventional subdivision. This technique provides an attractive natural amenity that enhances the marketability of a development while helping to ensure the preservation of environmentally sensitive features. Furthermore, open space development can improve housing affordability through reduced lot sizes and the developer’s ability to shorten utility lines and roads. Because there is no minimum lot size, developers can build a wide range of housing styles in a single development. There are likely to be more and more open space subdivisions as the County approaches build-out, because as vacant land in many parts of the County becomes scarce, development is being considered for previously “passed over” sites.

One segment of the housing market that will need attention in the future is the elderly. According to the U.S. Census Bureau, 7.5% of York County’s population in 1990 was at least 65 years old. The Virginia Employment Commission projects that this age group will grow to 11.5% of the population by the year 2010. The senior population will mushroom thereafter as the baby boom begins to turn 65. This dramatic increase in the number of older Americans will have a significant impact on the housing market.

In 1999, the Board of Supervisors approved a 124-unit quadruplex planned development that will be targeted mainly to people who are age 55 and older. Otherwise, there is no housing in the County specifically designed to meet the needs of the elderly. Many older Americans are physically able to remain in homes where they have lived for many years, but those with limited retirement income and diminishing strength often have difficulty coping with housing expenses and household demands. Townhouses, duplexes, and condominiums help to meet the needs of these residents. While some older people welcome the new lifestyle

that such units offer, and some need special nursing care, most are capable of leading independent lives with limited support services. One mechanism that has been developed to enable the older population to "age in place" is the accessory apartment, which is an independent living unit developed in connection with an existing single-family detached home. They can be within, or attached to, the primary dwelling, or they can also be in a detached accessory building. Accessory apartments provide opportunities for households with an older relative who needs some degree of assistance to remain independent. They also provide an opportunity for elderly persons with limited incomes who might otherwise be forced out of their homes by property taxes and homeowners' insurance to rent to a family member, producing a supplementary income. York County permits accessory apartments as a matter of right in most single-family residential zoning districts. A special use permit is required in some instances. As the population continues to grow older, there may be a need for the County to become more flexible in allowing accessory apartments.

Residential development should be designed to provide pleasant and attractive living environments. Poorly designed developments detract from the County's visual appeal and can potentially harm property values in surrounding areas. Well-designed neighborhoods – with sidewalks, open space, and narrow, tree-lined, curvilinear streets – can reduce the strain of new development on County infrastructure, facilities, and services. Incorporating these and other design elements can foster a sense of community among the residents and reduce the threat of crime.

A VISION FOR HOUSING

Decent, safe, sanitary, and affordable housing should be available to all County residents.

HOUSING GOALS AND STRATEGIES

- 1 Make suitable housing available to households of a wide range of income levels.**
 - 1.1 Provide opportunities through zoning for a variety of housing types.
 - 1.2 Use the “Affordable Housing Incentive Provisions” and other development opportunities of the Zoning Ordinance that promote cost-containment.
 - 1.3 Continue to use federal and state housing subsidies, grants, loans, and tax savings programs to help meet the housing needs of lower income residents.
- 2 Protect residential areas from encroachment by incompatible land uses that adversely affect the quality of life.**
 - 2.1 Continue to require landscaped transitional buffers between residential development and incompatible land uses.
- 3 Prevent neighborhood blight and housing dilapidation.**
 - 3.1 Continue to support and use private and public rehabilitation to assist low- and moderate-income households in maintaining their properties.
 - 3.2 Expand and support neighborhood watch and clean-up programs.
- 4 Promote the development of pleasant and attractive living environments.**
 - 4.1 Continue to require open space, recreation space, trees, and landscaping in all new residential development.
 - 4.2 Review the Subdivision Ordinance to identify opportunities to help create a sense of community through the use of residential development design elements, such as sidewalks and streetlights.
 - 4.3 Revise the Zoning Ordinance dimensional standards as necessary for residential districts to eliminate excessive setback requirements.
 - 4.4 Continue to encourage the use of clustering and other innovative community design techniques that provide for the permanent retention of open space values.
 - 4.5 Continue to implement density bonus incentives.
- 5 Continue opportunities for mixtures of different types of housing (i.e., detached, attached, multi-family) in a single residential development.**
- 6 Continue opportunities for mixtures of residential, commercial, office, and limited industrial uses within a single development.**
 - 6.1 Encourage mixed-use development that allow the mixing of residences with other land uses within a single development under a coherent overall master plan.

TRANSPORTATION

INTRODUCTION

The transportation system can be viewed as a collection of facilities and machines that enhance mobility. Although roads are the largest component of that system, transportation planning encompasses many modes of transportation, including air, rail, water, transit, bicycling, and walking. Unfortunately, transportation planning is generally most apparent when not done correctly or when needs outstrip resources.

Transportation is a critical part of the overall planning process because it not only affects land use but *is itself* a land use. It shapes and molds the community in numerous ways. Roads and intersections use a great deal of land and also attract development. New roads can channel business away from old routes, thereby affecting existing businesses. Highways and rail lines form physical barriers to development and tend to separate communities as well as create traffic choke points where they intersect.

Before 1991, transportation planning in Virginia was little more than compiling lists of desired roadway improvements without regard to cost or feasibility. There traditionally had been no attempt to match costs with expected revenues. Consequently, transportation plans had no certainty attached to them and provided no guidance as to what improvements might actually be made within a period of time. Furthermore, there was little attempt to coordinate among different transportation modes.

The culture of transportation changed in 1991 when Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA), which placed more emphasis on planning and less on engineering. ISTEA, which was re-authorized in 1998 as TEA-21 (the Transportation Equity Act for the 21st Century) also required regional and state transportation plans to be “fiscally constrained,” to conform with air quality standards, and to consider all modes in making transportation investment decisions. The goal is to allow transportation decisions to be more responsive to the needs and desires of local residents.

Another emphasis of ISTEA and TEA-21 was on the need for regional transportation planning. Many travel patterns cross the jurisdictional boundaries of the communities within Hampton Roads, hence the need for a regional approach to transportation planning. In this regard, continuation of the regional network and modeling effort of the Hampton Roads Planning District Commission is crucial, not only to the region as a whole but to each of its member communities.

There have been several major transportation improvements and initiatives in the County since the adoption of the Comprehensive Plan in 1991, some of them as a direct result of ISTEA:

- Widening of the Coleman Bridge in Yorktown.
- Construction of Victory Boulevard (Route 171) between Route 17 and the Newport News City line.
- Completion of Route 199 with a full cloverleaf interchange at Mooretown Road.
- Extension and widening of Mooretown Road
- Widening of Old York-Hampton Highway.
- Widening of Amory Lane to improve access to Grafton High School/Middle School.
- Adoption of a regional bikeway plan for York County, James City County, and Williamsburg and the construction of bike lanes along Old York-Hampton Highway and Amory Lane
- Initiation of a three-year bus service pilot program
- Adoption of a County Sidewalk Plan

SUMMARY OF EXISTING CONDITIONS

Roadways

Roads represent the largest component of the County’s transportation network. Largely because of the County’s topography, the roadway network has developed with a large number of collector roads feeding

a few arterial roads. Roads in York County² are maintained not by the County but by the Virginia Department of Transportation (VDOT), which is responsible for almost 300 miles of roadway in the County.

The automobile is the travel mode of choice for most Americans, and York County residents are no exception. In fact, York County is more dependent on the single-occupant vehicle (SOV) than most neighboring localities, and this dependence is growing. The growing prevalence of the single-occupant vehicle, combined with high residential and commercial growth in the County and the region, has led to increased traffic congestion. Average traffic volumes on most roads in the County have risen over the past decade, straining some roads – including Route 17, Fort Eustis Boulevard (Route 105), Hampton Highway (Route 134), and segments of Interstate 64 and Victory Boulevard (Route 171) – beyond their capacity.

Unlike traffic congestion, traffic accidents have not increased significantly. For most roadways in the County the accident rate (accidents per 100 million vehicle miles of travel) has fallen because traffic volumes are increasing faster than the number of traffic accidents. Such trends are closely monitored by the York County Transportation Safety Commission, which is an advisory body to the Board of Supervisors composed of County citizens and staff who have an interest in transportation safety. One activity of the Commission, which developed the County's Transportation Safety Plan in 1992, is to analyze accident trends to identify hazardous locations which can then be emphasized through education, enforcement, engineering, or some combination thereof.

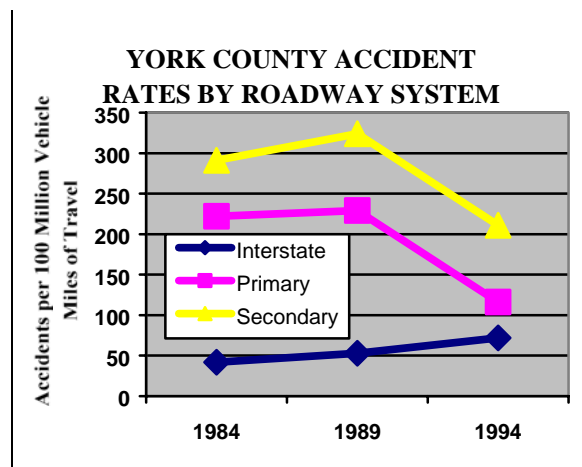


Figure 15

Taken together, safety deficiencies and capacity deficiencies are often an indication that some type of road improvement is needed. The four basic types of improvements are 1) New Facilities, which remove traffic from existing roadways; 2) New Through Lanes, which add capacity and enhance safety; 2) Spot Improvements, such as turn lanes, improved roadway geometrics, signals, signs, and pavement markings; and 4) Transportation System Management (TSM) Measures, which usually focus on reducing peak hour demand by encouraging alternative travel modes or off-peak travel times.

In order to provide guidance for assigning relative priorities to various road improvements, a mathematical model has been developed that allows capacity and safety improvements to be considered together. The intent of the model is not to prioritize specific road improvements but rather to provide information in order to assist decision-makers in establishing roadway improvement and funding priorities.

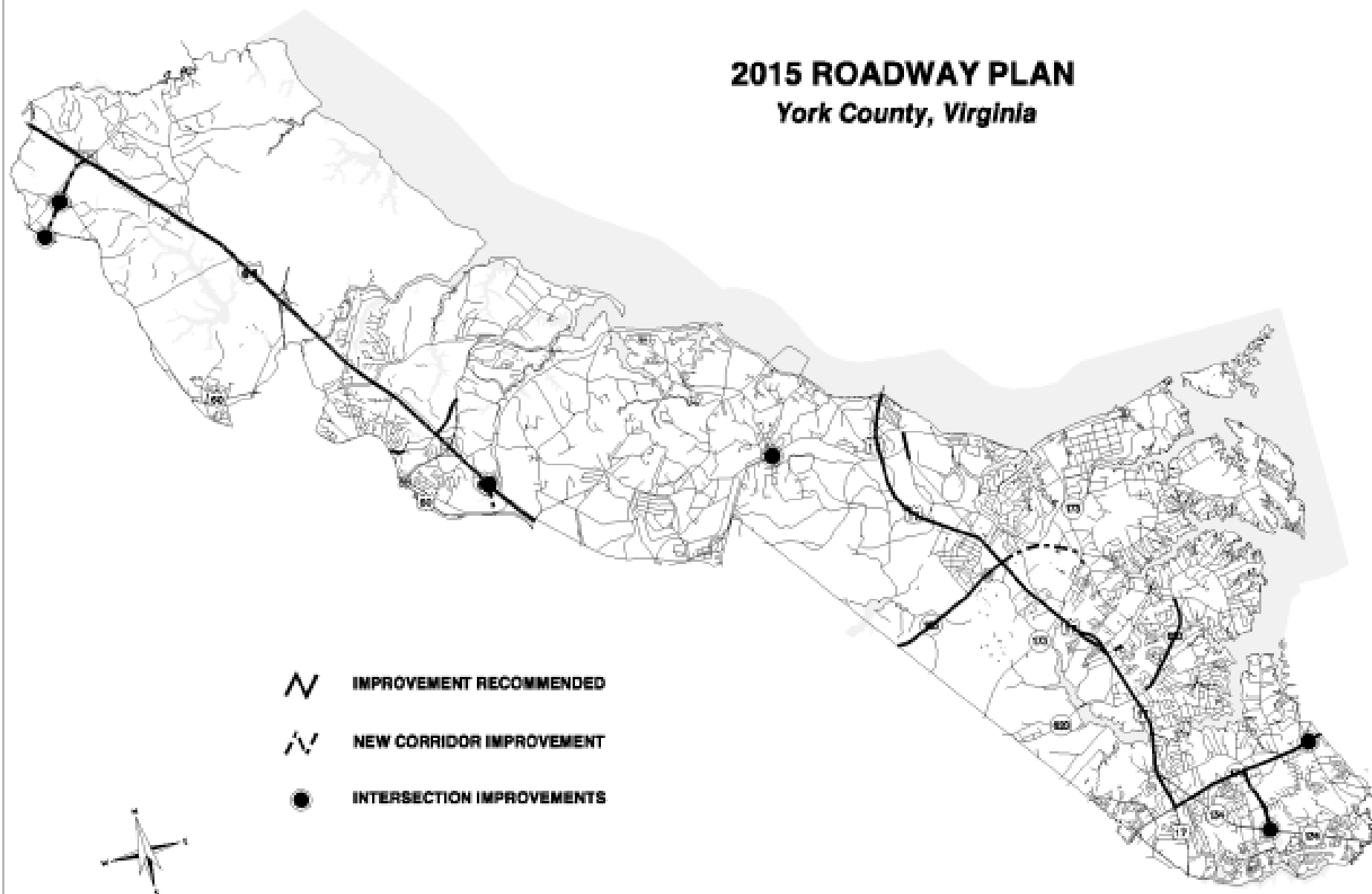
According to this model, primary roads in the County particularly in need of attention include Route 17, Route 134 (Hampton Highway), Route 171 (Victory Boulevard), and 173 (Denbigh Boulevard). For interstate and primary road system improvements, the County is largely beholden to VDOT and the Commonwealth Transportation Board, which each year establishes statewide interstate, primary, and urban highway system funding priorities through the adoption of the State Six-Year Improvement Program. In the secondary system, Oriana Road, Big Bethel Road, and Lakeside Drive stand out as roadways with a relatively high need for improvement. The County has much more control over secondary road system improvements than it does over the interstate and primary systems, working with the local VDOT representatives to prioritize secondary road projects over the next six-year period and to allocate the funds accordingly.

The 2015 Roadway Map depicts all County road projects that are in the 2018 fiscally-constrained Long-Range Plan for Hampton Roads (except the recently completed Mooretown Road projects) as adopted by the region's Metropolitan Planning Organization (MPO). This plan was developed using a computerized travel

² Excluding private streets and Federal roads, such as the Colonial Parkway and roads located within military bases.

2015 ROADWAY PLAN

York County, Virginia



November 06, 1999
Prepared by York County
Computer Support Services

demand model that allowed many different roadway scenarios to be tested and evaluated relative to one another. Projects in York County, some of which are currently under construction, are listed below.

- Widen Route 17, Fort Eustis Boulevard (Route 105), Interstate 64, and Victory Boulevard (Route 171).
- Extend Fort Eustis Boulevard eastward from Route 17 to the intersection of Goodwin Neck Road (Route 173) and Seaford Road (Route 622)
- Construct turn lanes at Route 134 and Big Bethel Road
- Construct a full cloverleaf interchange at Route 199 and International Parkway.
- Widen and extend Mooretown Road (Route 603).

Also depicted on the map are short- and medium-term secondary road projects that have been programmed into VDOT's six-year improvement plans. Secondary roads that are currently programmed for some type of improvement include Grafton Drive, Penniman Road, Wolfrap Road, Lakeside Drive, Burts Road, Big Bethel Road, Yorktown Road, Yorkville Road, Cary's Chapel Road, and Dare Road.

As noted above, with the passage of ISTEA in 1991 and TEA-21 in 1998, Congress recognized the need to look beyond road construction in developing solutions to our nation's transportation problems. Alternative modes of transportation – including transit, rail, bicycles, and walking – were given renewed attention in transportation planning.

Mass Transit

As discussed earlier, only a small proportion of County residents uses mass transit, partly because there is very little mass transit available in the County. In an effort to provide public transportation for County residents who need it, the County entered into a partnership with Pentran and the Virginia Department of Rail and Public Transportation to institute fixed route peak-hour bus service in June 1994. The service, which was paid for mostly with Federal ISTEA funds and operated as a three-year pilot project, never attracted significant ridership and was discontinued in 1997.

Another bus service that has proven more successful is the R&R ("Relax & Ride") Visitor Shuttle that serves the Williamsburg area, including portions of upper York County. This seasonal service began in 1997 as a three-year pilot program funded mostly with Federal ISTEA money through a regional allocation supplemented with funds from Williamsburg, James City County, and York County. The R&R shuttle has surpassed expectations, attracting a total ridership of 58,172 in 1997 and 121,061 in 1998.

Another form of transit is carpooling and ride sharing. To encourage this activity, VDOT has constructed commuter parking lots on East Rochambeau Drive and under the Coleman Bridge. In addition, the region funds a computerized ride-matching program known as Traffix, which is working with employers in the region to develop ride-sharing programs. Finally, high occupancy vehicle (HOV) lanes that are limited to vehicles occupied by two or more people offer another means to encourage ride sharing. HOV lanes are planned for construction along I-64 between the Route 199 (south) interchange and I-664 in Hampton.

Railways

The CSX main-line between Richmond and the coal port facilities of Newport News generally runs along the spine of the Peninsula and provides both passenger and freight service. County citizens have relatively convenient access to passenger rail service through Amtrak, which offers daily service to the Peninsula, with scheduled stops at Newport News and Williamsburg. The principal freight activity along this main-line route is the hauling of coal to the coal terminals in Newport News. Six to eight coal trains a day traverse the CSX line, primarily serving Virginia Power and Amoco.

A Major Investment Study (MIS) of the CSX Railway Corridor was completed in 1997. Local jurisdictions including York County were involved in reviewing the study's findings and in selecting the locally preferred alternative, which is to enhance bus service in the short term while planning for light rail service in the long term. The CSX Corridor preferred alternative will be integrated with the I-64 MIS, which calls for double-tracking the CSX corridor to provide for some separation of passenger rail and freight service. This will allow passenger rail speeds up to 110 mph and eight trains per direction per day,

potentially increasing daily ridership from 520 in 1996 to 3,000 by 2015. The CSX MIS will also be integrated with the Hampton Roads Crossing Study, which identified a corridor for a future third crossing of Hampton Roads that could possibly include a transit component.

Bikeways

In 1993, York County joined with Williamsburg and James City County in developing a Regional Bikeway Plan, which was adopted by the governing bodies of the three localities, who recognized that a regional approach was appropriate since bikeways, like roads, should not abruptly end at jurisdictional boundary lines. In accordance with this plan, 9.5 miles of bikeways have since been built along Old York-Hampton Highway and Amory Lane, and another 13 miles are scheduled for construction by the end of 1999. Three basic types of bikeways are addressed in the Regional Bikeway Plan:

- **Multi-Use Trails** constructed physically separate from roadways,
- **Shoulder Bike Lanes** constructed adjacent to traffic lanes and generally delineated by pavement markings, and
- **Shared Roadways** where the travel lanes are shared by all users of the roadway.

In 1994, the Historic Triangle Bicycle Advisory Committee (HTBAC) comprised of representatives of Williamsburg, James City County, and York County was formed and charged with coordinating updates to the Regional Bicycle Plan. Such an update was undertaken in 1996-97, and several series of public input sessions were held. The resulting Regional Bikeway Plan, which incorporates not only transportation-oriented facilities but recreational ones as well, reflects five years of public input from more than 400 citizens in the region. In York County, the Regional Bikeway Plan provides for a 115-mile bikeway system comprised of approximately 57 miles of shoulder lanes, 35 miles of shared roadways, and 22 miles of multi-use trails.

Walkways

In a number of obvious cases – including Richmond Road, Second Street, and Merrimac Trail – York County can be defined as the place where the sidewalk ends. Streets in the County that do have sidewalks or pedestrian/bicycle trails include Bypass Road, a segment of Lightfoot Road, Water Street, Ballard Street, First Avenue, Coventry Boulevard, Owen Davis Boulevard, and Kiln Creek Parkway. In addition, sidewalks are present along many of the County's subdivision streets.

In November 1995, on the recommendation of the Transportation Safety Commission, the Board of Supervisors adopted a sidewalk plan for York County. This plan was based on two premises: that people should be able to walk safely to nearby schools, shops, parks, churches, libraries, and they should be encouraged to do so. Accordingly, the sidewalk plan focuses on areas where people live within a reasonable walking distance of such facilities.

There are three basic ways to implement the sidewalk plan. One is to incorporate sidewalks, as appropriate, into road construction and improvement projects. Another is to require sidewalks in commercial areas as a condition of development. The third, along existing roadways where there is a demonstrated need for sidewalks but neither roadway improvement nor significant new development is likely, the County can initiate and fund sidewalk construction.

Airports

York County is served by three commercial airports: Newport News/Williamsburg International, Norfolk International, and Richmond International. Other airport facilities that are located in or affect York County include Langley Air Force Base in Hampton, airfields at Camp Peary and the Yorktown Naval Weapons Station, and the Williamsburg-Jamestown Airport in James City County.

PLANNED SIDEWALKS



Prepared by York County
Computer Support Services

The need for improvements, if any, to Newport News/Williamsburg International Airport will be dictated by demand. The Airport Master Plan, which was adopted by the Peninsula Airport Commission in 1997, considers three possible growth scenarios that are based on differing assumptions. The plan projects that annual airport operations (takeoffs and landings) will grow from approximately 169,400 in 1995 to somewhere between 222,800 and 482,200 by 2030. The annual number of passenger enplanements (outbound) at the airport is projected to grow from 162,000 in 1995 to 642,000 in 2030 under the low scenario and to 2.8 million under the high scenario. The high growth scenario assumes that Newport News/Williamsburg International Airport will become a connecting hub airport.

The 1997 Airport Master Plan calls for the ultimate extension of both existing runways and construction of a third in order to accommodate the high-growth connecting hub scenario. While such a configuration would extend the runways closer to populated areas of York County, the noise aspects of this configuration may actually be reduced in future years as noise abatement technologies are developed and utilized, both at airports and on the planes themselves. In fact, the Master Plan predicts that the area affected by noise from the fully developed airport will be less than the current situation.

The Norfolk and Richmond airports also have plans to expand to accommodate projected growth in activity. Both airports are projecting to double their number of annual operations by the year 2030, with over 300,000 operations projected at Norfolk International and 258,200 at Richmond International.

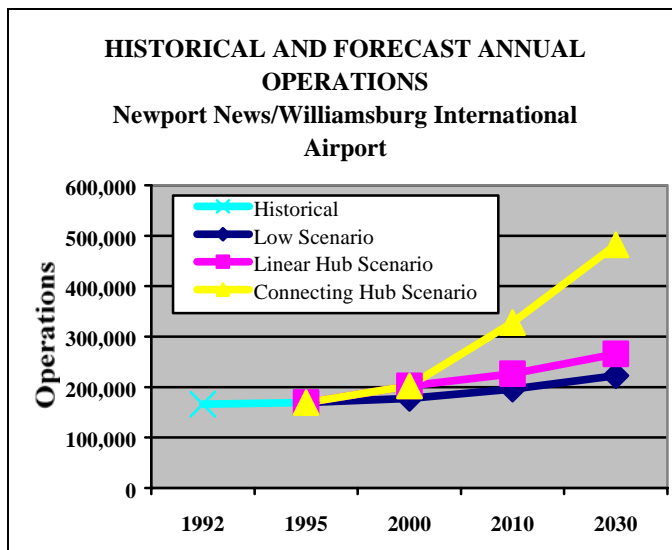


Figure 16

An “Eastern Virginia Airport System Study” is currently under way to analyze the air transportation needs of the greater eastern Virginia region, which encompasses the combined market area of the three airports. This study will address means to enhance capacity and efficiency and to stimulate economic development and perhaps lead to the eventual establishment of a major international airport in the region.

Waterways

The many waterways in and around York County are used by residents and businesses for a variety of purposes including seafood harvesting, recreation, and passive enjoyment, but only the York River serves as a transportation artery. The York River, with a 32-foot wide channel, is one of the deepest rivers in the world. It is 33 miles long and is fed by a mixture of freshwater from rainfall and drainage from the west and tidal action and saltwater from the Atlantic Ocean and Chesapeake Bay from the east.

Three primary types of cargo are transported by water along the York River – crude oil and refined petroleum products to and from Amoco; military supplies to and from the U.S. Navy installations along the river (primarily the Yorktown Weapons Station); and both raw materials and finished paper products to and from the Chesapeake Corporation at West Point. There has also been some barging of sand and gravel.

In addition to cargo transport along the river, Yorktown has served as a port-of-call for a passenger cruise ship line and has had other cruise ship lines call in the past. The major impediment to this type of activity in recent years has been the lack of adequate docking facilities, the public wharf having been closed because of disrepair. The Yorktown Master Plan calls for demolition of the old wharf and construction of a new wharf and pier complex that is longer and extends farther into the river. Such a facility would accommodate deeper draft vessels and large vessels – such as tall ships, dinner cruise boats, or commercial cruise lines – to dock simultaneously. The plan also recommends that facilities be provided for temporary docking of small pleasure boats for boaters wishing to make day trips to Yorktown. In addition, the plan notes that the end of

the existing pier in Yorktown could also be adapted to allow a cruise ship to dock parallel with the currents. An investor group is in the final stages of developing a lunch and dinner cruise operation based at the existing pier in Yorktown.

The scenic vistas and value of the York River contribute to the ambiance of Yorktown and the entire County. With a few exceptions, river views are relatively unspoiled by large-scale or industrial waterfront types of uses. The Colonial Parkway serves as the main tourist route between Williamsburg and Yorktown and the maintenance of the scenic values along this roadway is critical to preserving its appeal.

CITIZEN INPUT AND PLANNING POLICIES

As noted in the Demographic Profile, the future will bring more growth to the County and hence more traffic. This will continue even after the County reaches build-out, since it is surrounded by localities that have much more land area to support further development. Route 17 is a major artery running through the lower County that links the Peninsula with both south Hampton Roads and the Middle Peninsula. Similarly, Interstate 64 runs through the upper County and stretches north to the Richmond area, where it connects with I-295 and I-95. Congestion cannot be eliminated but it can be managed, and that is a prime focus of *Intelligent Transportation Systems* (ITS). The ITS concept, which is currently in the early stages of development in Hampton Roads, is to make use of rapidly developing technologies to manage transportation more efficiently on the existing network. Some examples of ITS applications include cameras along the road for monitoring traffic flow, variable message signs for reactive routing, interstate ramp metering for improving traffic flow at major conflict points, and automatic highway advisory radio.

As noted earlier, when it passed the ISTEA legislation in 1991 and TEA-21 in 1998, Congress recognized the need for a multi-modal transportation network focusing not just on roads but also on “alternative” modes of transportation such as rail, transit, bicycles, and walking. Road construction, therefore, is only part of the solution to our nation’s transportation problems. Among York County’s citizens, road construction is still seen as the best way of alleviating the County’s traffic congestion problems, but there also is support for a multi-modal approach to transportation planning that includes alternative strategies that do not rely on single-occupant automobiles, such as transit, ride-sharing, walkways, and bikeways.

During the Comprehensive Plan Citizen Input Process, citizens indicated that the County should promote transit and ride-sharing. Although York County’s three-year experiment in providing mass transit service to residents who need it did not prove successful, there may be transit strategies other than fixed-route bus service that are more viable. One form of public transportation service that might be more viable is express service to a single employer or a group of clustered employers. A number of such vehicles traverse the County daily between the Middle Peninsula and Newport News Shipbuilding. Similarly, Water County USA participates with Busch Gardens in contracted express service from Newport News to its facility during the summer months. These employment-only services generally require little operational subsidy by either the employer or the public sector because of their limited scope and high occupancy rates. Because of the dispersed low-density residential development in York County, employment-based services would require relatively few centralized gathering points – such as underused parking lots – to serve as “Park & Ride” areas where riders can legally and safely park their cars to board the bus or van.

In addition to the resident-oriented services discussed above, the visitor market presents opportunities for creative transportation solutions, as demonstrated by the success of the R&R Visitor Shuttle. Considerable discussion is occurring relative to promoting Yorktown as a port-of-call for both small cruise ships and private vessels. Visitors who arrive at Yorktown by water will need ground transportation services to visit the rest of the Historic Triangle, and few boats are likely to call unless such services are available. A market study performed as a part of the Yorktown revitalization effort found that a transportation center within walking distance of the Yorktown Waterfront containing parking and convenience facilities to support tour bus, shuttle bus, trolley, and limousine services may be viable. In response to this study and the discussion that occurred during the development of the Yorktown Master Plan, the County is in the process of purchasing a trolley bus to be used to shuttle visitors throughout the village. In the meantime, the County is leasing a trolley from Pentran on selected weekends during the visitor season.

In the Comprehensive Plan Review Survey, the citizens indicated that sidewalks should be constructed in strategic locations and within residential neighborhoods but not along major commercial roads. Specifically, 53% of the residents believe that sidewalks are needed in areas where people live within a ten-minute walking distance of stores, schools, etc., and 55% feel that sidewalks are needed within residential developments. These findings are consistent with the guidelines that were used in developing the County Sidewalk Plan.

Well-designed, constructed, and lighted walkways increase pedestrian safety and, in so doing, invite pedestrian use. Consequently, in tourist and commercial areas, good sidewalks can provide economic advantages by encouraging consumers to patronize nearby establishments rather than driving farther and perhaps to a business not located in the County. Ideally, walkways should be provided within and between residential neighborhoods and nearby recreational areas, community facilities, and commercial establishments. VDOT will consider walkway construction in conjunction with road improvement projects when such facilities are contained in a sidewalk plan adopted by the locality. The costs are added into the project cost in such situations. In addition, Federal funds are available for walkways through the CMAQ (Congestion Mitigation and Air Quality) program, the Transportation Enhancements program, and the Surface Transportation Program (STP). In fact, one of the purposes of ISTEA – and TEA-21 – is to encourage the construction of walkways by making categories of funding available for such projects.

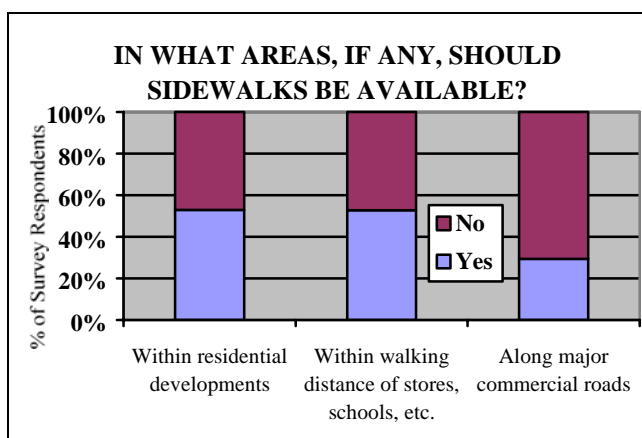


Figure 17

Like walkways, bikeways were also a specific focus of the ISTEA legislation. The funding sources mentioned above are also available for bicycle facilities. Although bicycles are vehicles under Virginia law and are permitted on every road and highway except the Interstate system, some roads have speed, volume, or geometric characteristics that discourage or preclude their use by cyclists. VDOT will construct bikeways as a part of road improvement projects when they are shown on a bikeway plan. Little financial participation by the County is required since right-of-way and engineering costs are borne by VDOT and approximately 80% of the construction costs are eligible for federal funding.

A common distinction in bikeway planning is between transportation and recreational routes. The bikeway plan contained in this element attempts to address both but is still principally a transportation-oriented plan. Recreational routes should be considered in developing parks and recreation plans as well as in the review of large residential developments. It is especially important that bikeways connect residential, commercial, and recreational areas, and community facilities such as schools, libraries, and athletic fields. In any case, bicycle facilities should be connected and integrated to form a comprehensive bikeway system.

Just as roads are one component of the surface transportation network, surface transportation is just one component of the overall transportation system, which also includes air and water transportation. With regard to air transportation, the Comprehensive Plan Review Survey results indicate that the citizens generally support the expansion of Newport News/Williamsburg International Airport. The survey asked County residents if they agreed or disagreed with the following statement, and how strongly: “Newport News/Williamsburg International Airport should be expanded to provide direct flights to more cities even if it means extending runways further into York County.” A slim majority (51%) of the respondents agreed with the statement, whereas 37% did not agree. Almost half of those who expressed opposition to airport expansion (45%) live in the Grafton area, where aircraft noise is a common occurrence.

As noted earlier, because of the shift in the fleet mix away from louder military aircraft as well as the FAA-mandated phase-out of older planes with louder engines, the airport expansion is expected to reduce the noise problem experienced by County residents who live in the path of an airport runway. Nevertheless,

improvement in air service does not necessarily require expansion of the local airport. Richmond and Norfolk International airports are both within approximately an hour's drive from most areas of the County.

The County's role in enhancing water transportation is fairly limited. However, the Yorktown revitalization effort is an opportunity for the County to make some improvements through land use and infrastructure investment decisions.

In recent years York County has taken important steps toward the development of a more multi-modal transportation network. Although road construction will continue to be a major component of the County's approach to enhancing mobility, transportation planning must also consider other modes and other strategies with a focus on the long-term needs of both the County and the region. As the region continues to grow, the County must continue to work with the other Hampton Roads communities to engage in long-range planning to develop regional solutions to regional transportation problems. The Hampton Roads Crossing Study, CSX Corridor and I-64 Major Investment Studies, and the work of the Hampton Roads Metropolitan Planning Organization are good examples of the type of regional, long-range planning and decision-making that will be needed more and more in the years ahead.

A VISION FOR TRANSPORTATION

People and goods should be able to move safely, efficiently, and cost-effectively within the County and throughout the region.

TRANSPORTATION GOALS AND STRATEGIES

AIRPORTS

- 1 Develop on a regional basis an air transportation system in a manner that minimizes the noise impacts and safety concerns on existing County residential areas, while maximizing the economic and transportation service benefits to County citizens.**
 - 1.1 Advocate the development of an enhanced regional air transportation network based around tying together the existing airport capacity in eastern Virginia with a high-speed rail system that links Newport News/Williamsburg International Airport with Richmond International and Norfolk International airports.
 - 1.2 Investigate the feasibility of securing voting representation on the Peninsula Airport Commission.
 - 1.3 Ensure that land use decision affecting areas adjacent to Newport News/Williamsburg International Airport take into consideration impacts on both the County and the airport.

BIKEWAYS

- 2 Double the number of bicycle trips for purposes of transportation as well as recreation both within York County and between the County and neighboring jurisdictions.**
 - 2.1 Develop and regularly update a regional bikeway network and programs facilitating safe bicycle transportation.
 - 2.2 Integrate bikeway development into road construction and reconstruction/widening projects when funding is available.
 - 2.3 Encourage the provision of bikeways and facilities, including bike racks, in multi-family residential developments and commercial shopping centers and districts.
 - 2.4 Install directional signs for and publicize inter- and intra-County bike routes.
 - 2.5 Develop neighborhood and community bicycle networks to safely connect residential areas both with nearby commercial and public use areas and with neighboring subdivisions.
 - 2.6 Conduct bicycle rider training ranges at schools, fire stations, shopping centers, etc., and provide bicycle law and safety education as part of the elementary school program as set forth in the Standards of Learning.
 - 2.7 Continue support of and participation in regional bicycle and pedestrian efforts including the Historic Triangle Bicycle Advisory Committee.

MASS TRANSIT

- 3 Promote the development of facilities to accommodate van-pooling, ride-sharing, telecommuting, and other transportation demand management efforts aimed at the employment and service sectors in the County and the region.**
 - 3.1 Jointly develop with adjacent jurisdictions “Park & Ride” programs and transfer sites using existing underused parking areas.
 - 3.2 Continue to offer reduced parking requirements as an incentive for developers to incorporate into development plans transportation demand management practices that encourage alternative modes of transportation such as van-pooling, car-pooling, bicycle and pedestrian commuting, telecommuting, etc.
- 4 Promote the development and subsequent utilization of mass transit to serve heavily traveled and densely populated corridors to reduce passenger car loads on such corridors.**
 - 4.1 Investigate the feasibility of establishing high-speed rail links between the County, Newport News/Williamsburg, Norfolk and Richmond International airports to serve both air passenger and air cargo needs.
 - 4.2 Participate in feasibility studies analyzing light rail opportunities along the CSX corridor.
 - 4.3 Continue to analyze the feasibility of implementing express bus service along congested corridors in the County in a cost-effective manner.
 - 4.4 Initiate cooperative funding ventures to support tour bus services between Yorktown and other visitor-oriented areas and attractions in Hampton Roads, with primary emphasis on establishing regular tour bus services within the Historic Triangle.
 - 4.5 Participate in and financially support for no less than three years the Williamsburg Area Visitor Shuttle Bus.
- 5 Encourage economical transportation services for senior citizens and the physically and sensory challenged.**
 - 5.1 Design cost-effective programs and service targeted at specific market segments where and when appropriate.

RAILWAYS

- 6 Expand rail passenger service to and throughout the Peninsula.**
 - 6.1 Regionally develop expanded passenger rail services--including consideration of schedules, frequency, facilities, and rolling stock--throughout the Peninsula.
- 7 Exploit, upgrade and extend existing rail linkages in York County to promote industrial and warehousing uses.**
 - 7.1 Determine, in concert with the U.S. Navy, the feasibility of modernizing and using the Cheatham Annex spur line to serve privately held industrial property adjacent to it. If determined feasible, preliminary engineering for such modernization should be performed.

ROADWAYS

8 Reduce peak-hour traffic congestion on major County arteries.

- 8.1 Annually establish priorities and standards for the improvement and expansion of existing roadways through the CIP and VDOT Six-Year Plan process using the prioritization model contained in this Plan.
- 8.2 Apply Intelligent Transportation Systems (ITS) technology to the Route 17 corridor and seek early deployment funding from the State and Federal Departments of Transportation.
- 8.3 Develop roadway network plans to support existing and emerging residential, commercial, and industrial development patterns.
- 8.4 Limit the numbers and types of direct access to the roadway network.
- 8.5 Encourage residential development patterns that provide direct driveway access from individual units to local streets and not to collector and arterial roadways.
- 8.6 Coordinate and cooperate with neighboring jurisdictions in planning and developing roadway systems.
- 8.7 Participate in revenue-sharing matching-fund programs offered by VDOT to the maximum extent fiscally feasible in order to accelerate road construction and improvement projects.
- 8.8 Require the interconnection of subdivision street systems for use by bicyclists, pedestrians, emergency vehicles, and--where such interconnection will not encourage "cut-through" traffic by people living outside the subdivisions--automobiles.

9 Reduce the number and severity of accidents on York County's roadways.

- 9.1 Continue to provide County-funded law enforcement positions used in traffic law enforcement operations.
- 9.2 Continue to support and promote the York County Transportation Safety Commission.
- 9.3 Install or require installation of street lighting along heavily traveled corridors, at critical intersections, within new medium- and high-density residential areas, in office and industrial parks, and at other appropriate locations in the County.
- 9.4 Develop specific plans for the transportation of hazardous materials within and through the County.
- 9.5 Evaluate the use of traffic calming street designs that could, if determined desirable after careful study, be incorporated into the Subdivision Ordinance for application in residential neighborhoods.
- 9.6 Enhance capabilities to respond to vehicular accidents, including those involving hazardous materials, on County roadways.
- 9.7 Require that traffic issues and concerns be fully addressed as a part of all new development in the form of a traffic impact analysis.

10 Promote roadway development that is sensitive to environmental and cultural resources.

- 10.1 Incorporate into the County's development review process provisions to require that roadway plans be analyzed with specific focus on the preservation and/or restoration of environmental, aesthetic and cultural resources to include the establishment of and maintenance of greenbelts and scenic easements, planting of street trees, and landscaping

of roadway frontages and medians. In this regard, the provision of earthen forms and buffers containing dense vegetation and trees between residential communities and major roadways should be required as the preferred alternative to structural noise barriers.

WALKWAYS

11 Encourage people to make short trips by foot.

- 11.1 Require the installation of pedestrian linkages between residential areas and schools, shopping areas, and recreational, cultural, and public facilities.
- 11.2 Annually review, and if necessary revise, in conjunction with the County's six year road plans, the recommended sidewalk plan contained in this Plan to ensure that the categorization and prioritization of proposed sidewalk locations remain applicable and appropriate.
- 11.3 Develop a walking tour of Yorktown incorporating both the historic area and the waterfront. Construct as necessary, pedestrian facilities to support this walking tour and publish a walking guide to the village incorporating maps and historical information about the buildings and sites along the way.

12 Provide a safe and convenient walking environment for pedestrians.

- 12.1 Develop new walkways and complete existing walkway systems, including marked crosswalks, lighting, and signals where appropriate, in conjunction with adjoining jurisdictions
- 12.2 Provide inviting and appealing sidewalks in commercial, tourist-oriented, and residential areas as opportunities arise and funding becomes available.
- 12.3 Require walkways in new medium- and high-density residential development and as a part of development plan approvals where appropriate.
- 12.4 Include, as appropriate, sidewalk construction as a part of roadway construction and improvement projects.

13 Reduce the number and severity of pedestrian traffic accidents.

WATERWAYS

14 Enhance the safety of the County's waterways.

- 14.1 Develop, in conjunction with the U.S. Coast Guard, other governmental entities and agencies, and private industry, a comprehensive emergency preparedness and response plan for water-borne disasters and oil and hazardous materials spills and incorporate such a plan into the County's overall emergency plan.
- 14.2 Regulate the use of jet skis and other watercraft and provide enforcement.

15 Revitalize the Yorktown waterfront and strengthen the relationship between the York River and Yorktown.

- 15.1 Promote Yorktown as both an origination point and port-of-call for small passenger cruise ship operations.
- 15.2 In accordance with the Yorktown Master Plan, exploit opportunities available to revitalize the Yorktown waterfront and strengthen the relationship between Yorktown and the York River.

- 16 Explore opportunities for meeting dredging needs for both recreational and commercial watercraft.**

UTILITIES

INTRODUCTION

Utilities fulfill several vital human needs, such as water, sewage disposal, and electricity, for example. However, comprehensive planning for the extension of utilities is somewhat difficult because of the development and extension of utilities by private developers. Most utility companies have master plans that address expansion and capital improvements to their systems. York County's Utilities Strategic Capital Plan addresses potable water, sanitary sewer systems, and stormwater management. These master plans, which are developed and implemented by the County's Department of Environmental and Development Services and adopted by the Board of Supervisors, are reviewed and updated on a regular basis.

Utility policies can significantly affect the character of a community in a variety of ways. For example, development, particularly development at a greater intensity than previously found, frequently follows the sewer line both in timing and in physical location. In addition, utility easements sometimes form barriers to development and can divide communities, and aboveground utilities and telecommunications towers can degrade the aesthetics of a community.

There are numerous utility providers of which local government is but one. Provisions and procedures for the coordination and control of utility location and installation standards should be formulated. The County has been an active member in a regional effort to standardize the location of all underground utilities. York County has also been selected by the Virginia Department of Transportation (VDOT) as a community to test the installation of utilities in accordance with the regional standard.

Since the adoption of the Comprehensive Plan in 1991, the County has made significant progress in making public water and sanitary sewer available to County residents. During this period the County began implementation of an aggressive water and sewer extension program in accordance with the Utilities Strategic Capital Plan. As a result, sanitary sewer has been extended to the Seaford, Lackey, Dandy, Lightfoot, Greensprings, Mill Cove/Tabb Terrace, Cary's Chapel Road, Queens Creek Road, Calthrop Neck, Old Lakeside/Patricks Creek and Dare areas. Public water has been extended to the Lightfoot area, Riverside Drive, Jonadab Lane, Brook Lane, Marine Circle, Whites Road, Woodland Drive, Oyster Cove Road, Old Lakeside Drive, Penniman Road, Bay Tree Beach, Springfield Terrace, and Dare.

SUMMARY OF EXISTING CONDITIONS

Regulated Utilities

The principal County concern with respect to regulated and similar types of utilities is aesthetics. Many County citizens view aboveground wires as unattractive, and underground wiring has been required since 1985 for all new development in the County.

Wireless telecommunications infrastructure has given rise to another set of aesthetic concerns with the proliferation of telecommunications towers. The development of new technologies has revolutionized the field of wireless communications, and consumer demand for these services has increased sharply as a result. The fast-paced wireless communications industry has presented local governments the challenge of guiding the siting of the industry's antennas in its communities, mainly antennas and their support structures. At times, it is difficult to find suitable locations that meet both the expectations of the wireless industry and the aesthetic goals of the community.

Support structures are typically needed for the placement of an industry's antennas to deliver wireless communications. Antennas must be at specific heights to transmit and receive radio frequencies adequately. Existing support structures (e.g., buildings, utility poles, pylons, church steeples, water towers, highway signs, lighting poles, and existing towers) can help accommodate the industry's antennas when they are located in or near a provider's service area. Basically, any structure that meets the height requirements needed by the service provider can be adapted to accommodate an antenna. The industry often uses existing

support structures when available, but when they are not available the communications provider must construct a support structure capable of supporting their antenna.

Sewer

Because soil limitations and a high water table make septic systems infeasible in most areas of the County, a sanitary sewer system is the preferred way to handle the treatment of the sewage. York County's role in public sewerage is to collect wastewater from the source and transmit it to the Hampton Roads Sanitation District (HRSD) system. HRSD is a regional authority providing wastewater treatment facilities. The HRSD's York River Treatment Plant treats all the sewerage from the lower County, Poquoson, and most of Hampton and has enough capacity to provide sewerage treatment to any new development in its service area in the foreseeable future. Sewerage from the upper County is treated at the James River Plant in James City County.

HRSD annually prepares a five-year Capital Improvements Program (CIP) containing planned construction projects and engineering studies. The CIP also includes a list of long-range projects projected for the next five to fifteen years. Projects in the CIP that are planned or proposed in York County, both short- and long-range, are listed in **Table 6** and described in greater detail in Appendix G.

HRSD CAPITAL IMPROVEMENTS PROGRAM	
SHORT-RANGE (5 Years or less)	LONG-RANGE (5 to 15 years)
Lightfoot Interceptor Force Main	Tabb Pressure Reducing Station
Colonial Williamsburg Pump Station Replacement	Yorktown Interceptor Force Main Parallel
York River Treatment Plant Re-Use Facilities	Kiln Creek Interceptor Force Main
York River-Gloucester Interceptor Force Main Evaluation	
York River Treatment Plant Odor Control Improvements	
Source: Hampton Roads Sanitation District Capital Improvements Program, FY 1999-FY 2003	

Table 6

York County's Utilities Strategic Capital Plan is designed to provide sanitary sewer service (and water service) to existing residential areas based on criteria established by the Board of Supervisors. The most recent plan outlines those projects that will be started by 2006. The program is self-supporting and is funded through both connection fees and meals tax revenue.

For new development, the developer is required to extend sewer service to the development and dedicate the system to the County for operation and maintenance. Sewer lines are sometimes required to be larger and deeper in order to provide for the extension of the system to accommodate not just the proposed development but also future development without the requirement of an additional pump station.

Stormwater Management

Stormwater management has evolved over the years from providing proper drainage for prevention of flooding to controlling quantity and quality of stormwater runoff to pre-development conditions. This is done through a variety of Best Management Practices (BMPs), including wet ponds, dry ponds, infiltration systems, porous pavement, and grass swales. The qualitative aspects of drainage are especially important in Chesapeake Bay Preservation and Watershed Management areas.

Stormwater management systems must fulfill the following basic objectives:

- Prevent flooding and subsequent property damage from runoff from rainfall events.
- Control post-development flow from a property to the pre-developed rate unless the site discharges to an adequate and proven system.
- Release water that is as free from sediment and normal water-borne pollutants as possible.
- Be maintainable so that they continue to function as designed.

All of these objectives should be accommodated in the *initial* design process since it is both difficult and expensive to retrofit systems that fail to accommodate one or more of the objectives.

The County completed a comprehensive Stormwater Management Plan that has been incorporated into the Utilities Strategic Capital Plan. County staff studied the various drainage basins and sub-basins under full development conditions based on projected land use. For each drainage sub-basin, the hydrology was computer-modeled and alternative solutions analyzed to develop the optimum solution in terms of cost, effectiveness, and water quality issues. The plan suggested that stormwater management systems (BMPs) serving multiple properties may be more effective for controlling the quality and quantity of stormwater runoff than individual structural BMPs for every parcel. The Board of Supervisors recently formed a Drainage Advisory Committee to further review and prioritize the stormwater projects and provide a forum for citizen involvement.

Water

The water supply system in York County is composed of several different suppliers and distributors. The largest single component of the potable water system is Newport News Waterworks (NNWW), which is operated by the City of Newport News. The City of Williamsburg and the James City Service Authority supply and distribute a small amount of potable water in the Upper County. Sydnor Hydrodynamics and Mountain Lake Water Company distribute Newport News water to certain neighborhoods via their privately owned distribution system. The County also owns and operates five wells which supply potable water to the Lightfoot and Skimino/Banbury Cross areas.

The most critical concern with respect to expanding water service is the acquisition and development of a long-term supply of raw water. York County participates with the other Peninsula localities in the regional Raw Water Study Group (RSWG) formed in September of 1988. As the region grows, so too will the water demand while the safe yield of the raw water supply is diminishing. The RSWG projects that water demand on the Peninsula will increase by approximately 60% by 2040. Meeting this demand will require both short-term and long-term strategies because of the extended lead time required to secure environmental approvals from the State and Federal governments.

York County has entered into an agreement with the City of Newport News for Newport News Waterworks to assume responsibility for **all** potable water service to the County except those areas served by Williamsburg and James City Service Authority. This agreement, however, is contingent on the Army Corps of Engineers' approval of the proposed King William Reservoir project. Because of uncertainty as to whether or not the reservoir will ultimately be approved by the Corps of Engineers, a contract has been prepared that is not contingent on the reservoir. When the contract is fully executed, which is expected to occur by the year 2006, NNWW will assume ownership and control of the County's five wells.

The Utilities Strategic Capital Plan addresses the extension of public water service to existing residential areas served by private wells or private water suppliers. As with the sewer extensions, the Board of Supervisors established criteria for prioritizing water extension projects in different areas of the areas of the County.

CITIZEN INPUT AND PLANNING POLICIES

The primary purpose of utility extension policy, according to the citizens, should be to provide public sewer and/or water service to those areas where failing septic systems and/or wells pose a serious health hazard. This goal is supported by three-fifths of the citizens, according to the Comprehensive Plan Review Survey results, and it is the only option of those listed on the survey supported by most of the respondents. This item was also ranked seventh on the list of overall County goals. Ranked second among utility extension goals is eventually to provide public utilities to 100% of the County's private land area, supported by 38% of the citizens, while 35% feel that utility extension policy should seek to manage growth by directing the timing and location of new development to appropriate areas and prevent it in other areas. Slightly over a quarter feel that a purpose should be to encourage economic development by providing public utilities to undeveloped areas designated for economic development; interestingly, although only 26% support this as a utility goal, a somewhat higher proportion, 40%, support this as an economic development goal.

The citizens feel that correcting drainage problems in the County should be a high priority; 53% of the citizens consider it a high or very high priority. With regard to regulated utilities, a 43% plurality of residents feels that County funds should not be used to replace existing aboveground utilities underground, while about a third favor the use of County funds for this purpose. A relatively large proportion (23%) have no opinion on this issue.

The citizens' ranking of potential health hazards as the most important criterion for prioritizing water and sewer projects is consistent with the water and sewer rating criteria used in the Utilities Strategic Capital Plan. The most heavily weighted criterion for water extension (3 to 5 points out of a maximum total of 14 points) rating criteria is the incidence of "sporadic or numerous septic system problems." The presence of water quality and/or quantity problems is another criterion. Similarly, the sewer rating criteria give the greatest weight (3 to 5 points out of a maximum total of 14 points) to the presence of a "shallow aquifer system susceptible to contamination from septic systems" and "evidence of septic system failures." The impact on ground or surface water is also among the sewer rating criteria, as is the potential threat of septic systems to the Chesapeake Bay or its tributaries.

Both the water and sewer rating criteria also include a growth factor (0 to 3 points), which is consistent with the goal of using utility extension policy to direct the timing and location of new development. Potential service areas are rated more highly if the existing density is high and the potential for new development is low.

With regard to the high priority placed on correcting drainage problems by the citizens, the County Stormwater Management Plan makes recommendations for on-site and regional solutions. In addition, the Drainage Advisory Committee provides a forum through which the citizens can advise the Board of Supervisors on these decisions. Implementation of drainage improvement projects, however, will vary depending on funding and timing of development.

Addressing the aesthetic impacts associated with certain regulated utilities (i.e., overhead wires) does not appear to be among the citizens' high priorities, at least not high enough to warrant the expenditure of County funds to relocate overhead utilities underground. While the locations of aboveground utilities will not increase, neither will they decrease without direct County intervention and cost sharing.

Telecommunications towers represent another type of above-ground regulated utility that raises aesthetic issues. Through its development ordinances and use permit conditions for towers, the County can and does ensure that support structures are properly sited. Each potential tower site is different, but there are certain general policies that should govern where such facilities are located. Communications facilities should not be located in or near historic areas or along tourist corridors or greenbelts. They should be located in industrial and commercial areas rather than in residential neighborhoods. Every tower should be used to the fullest extent possible; this means that wireless providers should be encouraged to share towers (i.e., co-locate) whenever possible and that existing structures should be used when available. Under unavoidable circumstances and in tandem with the Zoning Ordinance, communications towers will be allowed to encroach on these areas if facilities are designed appropriately and are compatible with the character of the protected areas. In such cases, antenna support structures should be designed to blend into the environment whenever possible. Finally, and perhaps most importantly in this era of rapid technological change, the County must ensure that support structures are removed in a timely manner when no longer in use.

A VISION FOR UTILITIES

York County should be a locality where the people have access to safe and efficient means of wastewater disposal, to water supplies that are sufficient in quality and quantity to meet household and fire suppression needs, and to other utilities that enhance the overall quality of life.

UTILITIES GOALS AND STRATEGIES

REGULATED UTILITIES

1 Eliminate overhead utilities.

- 1.1 Continue to require the underground installation of all utilities in new residential, commercial, and selected industrial development.
- 1.2 Pursue the reduction of price differentials between aboveground and underground utility placement.
- 1.3 Pursue enabling legislation to include the costs of replacing aboveground utilities with underground utilities in concert with VDOT road projects.
- 1.4 Designate priorities for the replacement of aboveground utilities with underground utilities, with a primary focus on scenic roadways and tourist areas, funded by annual appropriations through the Capital Improvements Program.

2 Minimize the amount of tree clearing required for utility installation and maintenance.

- 2.1 Continue to ensure that the zoning and various utilities ordinances incorporate utility placement criteria that minimize tree clearing requirements for utility installation and maintenance. Additionally, tree replacement within temporary construction easements should be required.
- 2.2 Continue to implement landscaping and screening standards and requirements for various utility placements and structures including transformers, meters, antennae, and other similar aboveground structures.

3 Support and regulate the development of state-of-the-art telecommunications facilities in the County that serve both the educational and business communities and provide needed connectivity without sacrificing aesthetic objectives.

- 3.1 Discourage or prohibit towers in historic or residential areas unless there is no other practical option. Where towers are to be located within or adjacent to such areas, they should be disguised in some manner and not pierce the ambient tree line.
- 3.2 Guide towers to industrial areas and other areas where towers already exist.
- 3.3 Require towers to be engineered to support multiple users.
- 3.4 Limit the height of towers so that they will not require lighting unless a tower with lighting already exists nearby.
- 3.5 Ensure that new antenna support structures are safe and blend into the surrounding environment when possible.

SEWER

4 Extend public sewer to areas in the County based on a priority system that includes the following criteria:

- **Impact on water wells**
- **Impact on ground or surface water**
- **Threat to the Chesapeake Bay or tributaries**
- **Growth factor**

4.1 Continue to implement the Utilities Strategic Capital Plan.

4.2 Consider alternatives to conventional gravity line sewer systems--such as vacuum systems--that can serve existing development while not promoting expanded development.

4.3 Support the upgrading of Hampton Roads Sanitation District wastewater facilities in accordance with the HRSD's adopted Development Plan and its annual Facilities Management Plan and Capital Improvements Program.

5 Prevent development from exceeding the capacity of the public sewer system.

5.1 Use all available tools and techniques to defer all or part of permitted development until such time as adequate public infrastructure is in place to support the development, and seek enabling legislation to expand the County's authority in this regard.

6 Reduce the incidence of failing septic systems.

6.1 Require all new development, except very low-density residential, to be connected to public sewer.

6.2 Continue to target public sewer extensions toward those developed areas where the soils cannot support septic systems.

6.3 Collaborate with the local Health Department to encourage alternative and new technologies for failing on-site septic systems for existing homes.

STORMWATER MANAGEMENT

7 Reduce danger to persons, property, and the environment caused by stormwater runoff from developed areas.

7.1 Continue to require storm drainage systems that effectively remove stormwater runoff from developed properties.

7.2 Continue to require underground storm water management systems and curb and gutter in new medium- and high-density residential developments and in all new commercial subdivisions.

7.3 Establish erosion control techniques for all new development to prevent any increase in runoff-borne sediment, pollutant, or toxic loading.

7.4 Encourage the development and use of regional retention/detention ponds in residential and commercial developments wherever possible.

7.5 Continue to develop and implement a County stormwater runoff control manual detailing appropriate techniques to prevent increases in sediment, pollutant, or toxic loading. Once

developed and tested, use of the manual should be required through appropriate amendments to the development ordinances.

- 7.6 Continue to use state-of-the-art computer stormwater modeling software to assist all developers and landowners to use designs that qualitatively and quantitatively improve stormwater runoff from the development activities in the County.
- 7.7 Encourage low impact development and conservation development to reduce the need for structural stormwater management.
- 7.8 Revise the system for prioritizing stormwater capital improvement projects to give increased weight to environmental factors.
- 7.9 Provide training in the proper maintenance and operation of private retention and detention ponds to civic leagues, homeowners' associations, and other owners of such ponds.

WATER

8 Extend public water to areas in the County based on a priority system that includes the following criteria:

- **Septic system problems in area**
- **Fire suppression needs**
- **Water quality or quantity problems**
- **Growth factor**

- 8.1 Continue to implement the Utilities Strategic Capital Plan.
- 8.2 Investigate and consider, to the extent authorized by the Code of Virginia, the adoption of a local ordinance requiring existing households to connect to available water systems in the event of private well failure.

9 Expand the supply of potable water in the County and the region.

- 9.1 Continue to participate in regional approaches to water supply and availability, with emphasis on the creation of a regional water authority or district. The County should work toward jointly developing additional surface water storage and withdrawal capacity with neighboring jurisdictions.
- 9.2 Plan for adequate water supply and main capacity to ensure a balance of residential, commercial, and industrial connections for both existing and planned development.
- 9.3 Continue to require that new and extended water lines and systems be sized to provide adequate flows for fire suppression purposes.
- 9.4 Use all available tools and techniques to defer all or part of permitted development until such time as adequate public infrastructure is in place to support development, and seek enabling legislation to expand the County's authority in this regard.
- 9.5 Continue the County's participation in the Regional Raw Water Study Group.

10 Protect the quality and quantity of groundwater and surface water.

- 10.1 Require all new development, except very low-density residential, to be connected to public water or to a publicly-owned central water system.

- 10.2 Support DEQ's mandate to prevent destruction of non-tidal wetlands understanding they are important groundwater recharge areas.
- 10.3 Seek grants to assist with the development and mapping of abandoned private wells and develop a program to require closure in accordance with current Health Department regulations.
- 10.4 Continue enforcement of the requirements of the Watershed Management and Protection Overlay District.
- 10.5 Continue to monitor the septic tank pump-out program and pursue criminal penalties for non-compliance.

11 Discourage excessive water use.

- 11.1 Seek enabling legislation from the General Assembly to allow the County to amend the building code and other development ordinances to require the application of water conservation techniques in all new development and redevelopment projects.

LAND USE

INTRODUCTION

The Land Use element describes the distribution of existing land uses and the potential for future development and is perhaps the chapter of the Comprehensive Plan with which citizens are most familiar. The Land Use element identifies the policies that will guide the arrangement and intensity of future additions or changes to existing land use patterns. While residential densities and use characteristics are *generally* described in the Land Use element, *specific* standards, such as minimum lot sizes and permitted uses, are designated in the County's Zoning Ordinance and Zoning Map.

Located on a peninsula formed by the James and York Rivers and the Chesapeake Bay, York County consists of approximately 108 square miles (69,435 acres), approximately 36% of which is owned by the federal government. Another 10% of the County's land area is watershed property owned by the cities of Newport News and Williamsburg, each of which owns reservoirs in the County. While presenting a number of constraints for the County, these landholdings also ensure that a relatively large amount of open space will be perpetuated, thus contributing to the County's quality of life and the perception of a rural atmosphere.

York County is primarily a residential community, with concentrated commercial development along major arterial highways. The Amoco refinery and Virginia Power Plant, located in the Goodwin Neck/Seaford area, constitute the County's industrial base. Although the basic land use patterns in the County are the same in 1998 as in 1991 when the Comprehensive Plan was adopted, there have been some important trends and changes in land use and factors that influence land use:

- Residential development, particularly single-family detached but also townhouses and duplexes, has continued to be strong, although the annual number of units built has decreased each year since 1992. The *cluster* or *open space subdivision* development has become the typical technique used because of its flexibility and its attractiveness in dealing with the difficult characteristics of environmentally sensitive or infill development sites.
- The County has begun to emerge as a retail commercial destination with the development of several large-scale commercial projects, most notably the Village Square Center (Super Kmart) on Victory Boulevard and the 135,000-square foot Lowe's Home Center on East Rochambeau Drive.
- The new Grafton High/Middle School on Grafton Drive has created a major community activity center and, in conjunction with several new residential developments and programmed improvements to Grafton Drive, seems to be creating renewed interest in the Grafton commercial area, which was once "downtown" York County.
- The Interstate 64/Route 199 interchange area in the vicinity of Water Country USA is poised to become a major activity center. The development potential of the area has been enhanced by the acquisition of the approximately 900-acre "Whittaker's Mill" property (and Water Country) by the Anheuser-Busch Corporation. This has infused significant capital resources and heightened the development potential of the area.
- The completion of Route 199 between Interstate 64 and Route 60 parallel to Lightfoot Road has created a major commercial corridor for the County. The County has developed a water system to serve the area, and sewer service is also available. Some new development has occurred but the full potential of the area is yet to be realized. With the completion of the interchange at International Parkway and the International Parkway/Mooretown Road connection to the Bypass Road corridor set to occur in the next several years, this area also is poised to become a major enhancement to the County's non-residential tax base.

SUMMARY OF EXISTING CONDITIONS

The 1999 Existing Land Use Map shows the distribution of land uses throughout the County while **Figure 18** depicts graphically the distribution by type of use. In these discussions, *gross area* means all of the land area in the County, while *non-military* land area excludes all military installations and *gross developable* land area excludes both military and recreation/conservation land. Gross developable land area is slightly under half (45%) of the County's gross land area and includes both developed and vacant land. Gross developable land area as used in the discussion in this section also includes areas that, because of environmental characteristics (wetlands and slopes, for example) or other factors, might not be developable.

Direct comparisons between the existing land use data for 1991 and 1999 are highly misleading because the development of the County's Geographic Information System, which has taken place since the adoption of the Comprehensive Plan in 1991, has tremendously improved the accuracy of land use data. It should also be noted that Virginia Department of Transportation rights-of-way are not included in the acreage calculations.

Residential

There are approximately 14,000 acres of residentially developed land in the County, 96% of it single-family detached. This represents an increase of over 2,000 residential acres since the adoption of the Comprehensive Plan in 1991. Residential development, particularly medium- and high-density single-family as well as multi-family, tends to be located in areas with public utilities and convenient access to major thoroughfares.

Multi-family residential development includes townhouses and duplexes, apartments (both condominium and rental), and federally owned multi-family units. Multi-family development occupies approximately 600 acres or 1.3% of the County's non-military land area.

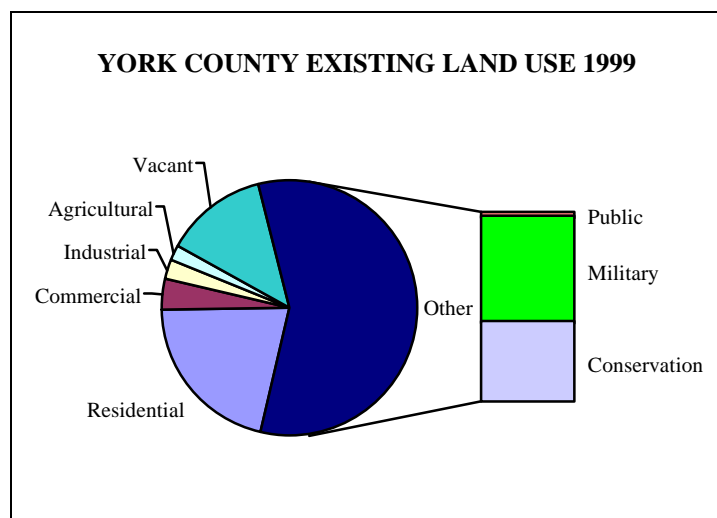


Figure 18

Commercial

The 2,600 acres devoted to commercial land uses in 1999 represent 5.8% of the County's non-military land area. Most commercial activities have developed in a linear fashion along Routes 17 and 171 in the lower County and Routes 143 and 60 in the upper County.

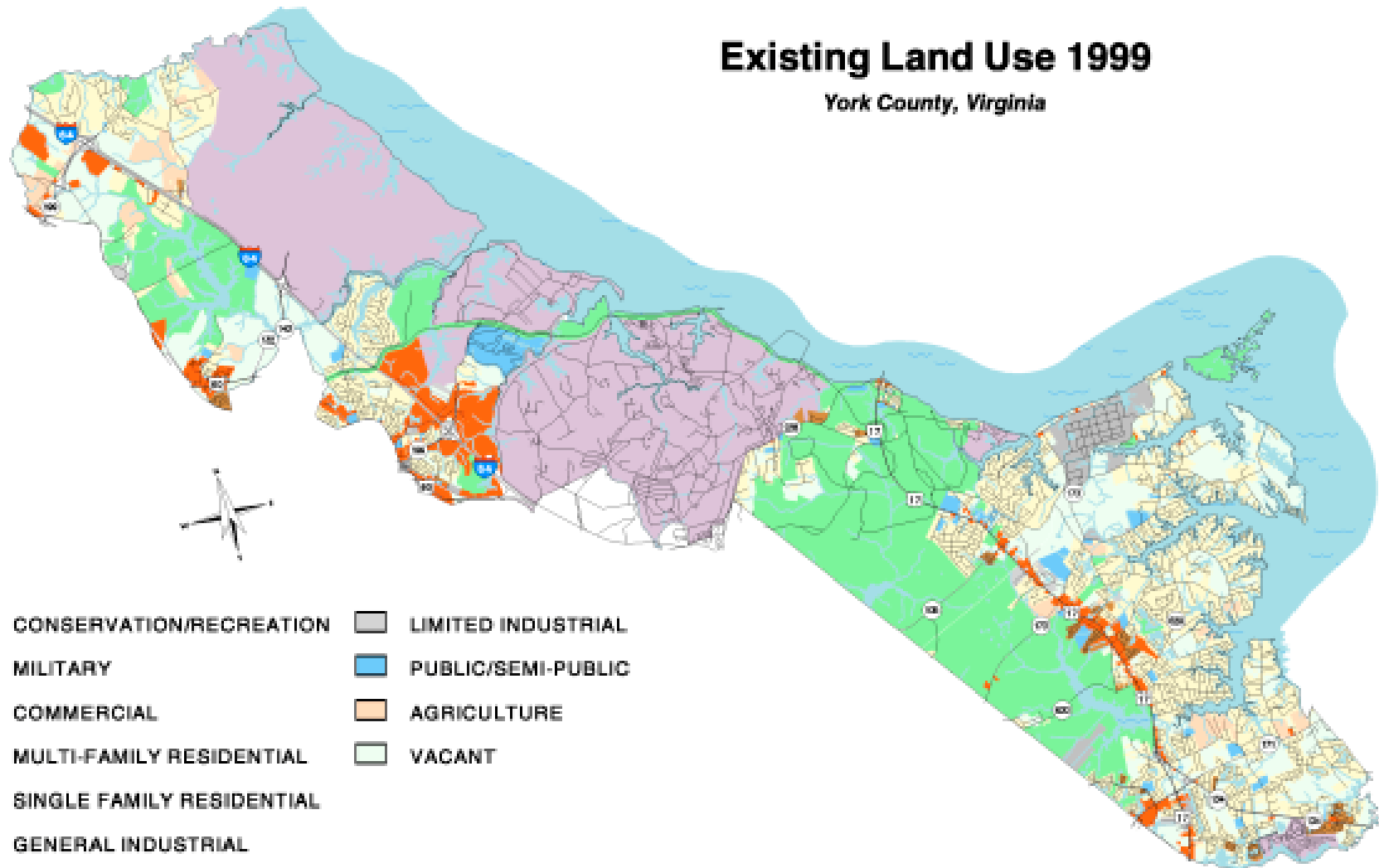
Industrial

The 1,500 acres devoted to industrial land uses represent 3.4% of the County's non-military land area. The great majority of this industrial land area is used by the Amoco oil refinery and the Virginia Power generating plant. Also included in the General Industrial category for the purposes of this analysis are the numerous junkyards at the southern end of the Route 17 corridor. This categorization is based primarily on the impact – such as noise, dust, odor, traffic, and visual appearance – of these activities on their surroundings.

Limited Industrial activities are scattered throughout the County and are in many cases located in the midst of commercially-zoned areas. Examples include the Greene, Bethel, Victory, and Ewell industrial parks.

Existing Land Use 1999

York County, Virginia



- | | |
|---------------------------|--------------------|
| CONSERVATION/RECREATION | LIMITED INDUSTRIAL |
| MILITARY | PUBLIC/SEMI-PUBLIC |
| COMMERCIAL | AGRICULTURE |
| MULTI-FAMILY RESIDENTIAL | VACANT |
| SINGLE FAMILY RESIDENTIAL | |
| GENERAL INDUSTRIAL | |

November 12, 1999

Prepared by: York County
Computer Support Services

Public/Semi-Public

Public and semi-public uses consume a total of 1,220 acres, or 2.7% of the non-military land area. Included in the public classification are the County schools, fire stations, and office buildings, the State-operated Victory Center at Yorktown, post offices, and the Commonwealth of Virginia's Emergency Fuel Depot property near Cheatham Annex; the semi-public classification consists primarily of churches.

Military

Military landholdings include the Bethel Manor military housing complex, the U.S. Coast Guard Reserve Training Center, the Yorktown Naval Weapons Station, the Cheatham Annex Naval Supply Center, and Camp Peary. As previously noted, this vast amount of military property exerts a major influence on land use and development patterns in York County. Most notable is the fact that the Naval Weapons Station “divides” the County into its “upper” and “lower” portions.

Open Space

For the purposes of this analysis, Open Space has been divided into the following three sub-categories:

- **Recreation and Conservation areas:** This category includes County and non-County parks and the holdings of the Newport News and Williamsburg Waterworks (Harwoods Mill, Lee Hall, and Waller Mill watersheds). These 15,470 acres represent 34.7% of the County's non-military land area.
- **Agriculture:** Commercially productive agricultural activities account for an estimated 1,300 acres or 2.9% of the County's non-military land area. In general, agricultural activities in York County contribute more to the perception of a rural atmosphere than they do to the County's economic base.
- **Vacant:** Vacant and undeveloped, privately controlled land comprises 8,660 acres, or 19.4% of the County's non-military land area.

CITIZEN INPUT AND PLANNING POLICIES

Based on the results of the Comprehensive Plan Citizen Input Process, York County's citizens are somewhat concerned about the rate of residential growth in the County and feel it should be controlled. As noted in the Housing element, they support the continuation of the current maximum build-out population. Economic development, in contrast, should be encouraged, provided that it does not come at the expense of the natural environment or of zoning requirements that regulate signage, landscaping and other aesthetic features of development. Such development should be well-buffered from residential areas, although small neighborhood businesses may be permissible in proximity to residential neighborhoods.

Not just the type but the quality of development is also important to the citizens, 80% or more of whom feel that landscaping should be required in all new residential, commercial, and industrial development.

The one adjective that is probably used more than any other to describe York County is “rural.” In fact, most residents who were not born in the County say that they moved to York County to get away from more urban environments. They like the fact that York County is less “built up” than other communities. They like the slower pace, the lush vegetation, the open space, the less congested atmosphere. York County tends to attract more than its share of families with children because it is a good environment for raising children. This is nothing new, and it is certainly not unique to York County. The post-World War II settlement pattern across the United States has been characterized by migration out of the central cities into the suburbs and beyond, into the so-called “exurbs.”

The New College Edition of the American Heritage Dictionary defines rural as follows:

1. Of or pertaining to the country as opposed to the city; rustic.
2. Of or pertaining to people who live in the country
3. Of or relating to farming; agricultural.

The dictionary identifies *arcadian*, *rustic*, *pastoral*, and *sylvan* as some of the synonyms for rural. According to the dictionary, “These adjectives are all descriptive of existence or environment which is close to nature . . . *Rural* applies to sparsely settled or agricultural country, as distinct from settled communities. *Arcadian* implies ideal or simple country living . . . *Rustic*, sometime uncomplimentary, applies to country people who seem unsophisticated, but may also apply favorably to living conditions or to natural environment which are pleasingly primitive. *Pastoral* implies the supposed peace of rural living and the shepherd’s life, with a suggestion of artificiality. *Sylvan* refers to wooded as opposed to cultivated country, and carries the sense of unspoiled beauty.”

There are elements of these definitions that apply to the citizens’ vision of York County as encompassed in the word “rural”. Certainly they seek a living environment that is “close to nature” with “wooded country” and a “sense of unspoiled beauty.” They also favor the generally “sparsely settled” or low-density residential development pattern, which promotes the “peace of rural living.”

Whether this “rural” character can be maintained in the face of continual development, and whether a balance can be struck between the citizens’ right to a high quality of life and landowners’ rights to develop their property are the sorts of challenges that were addressed in the 1991 Comprehensive Plan, which states that the following characteristics contribute to the perception of a “rural” character in the County:

- Retention of natural physical features,
- Retention of forest and woodland areas, both along roadways and within developed areas,
- Protection of existing agricultural areas,
- Protection or installation of landscaping and open space in all development, and
- Protection or enhancement of open space areas at strategic, highly visible locations throughout the County.

This is still as true in 1998 as it was in 1991, and, thanks largely to the approach the County has taken in its development rules and regulations – most notably the Zoning and Subdivision Ordinances – measures are in place to ensure that the County can continue to develop without losing these rural characteristics. These measures include tree preservation standards, landscaping requirements, lower residential densities, larger lots, open space requirements in housing developments, greenbelts along major roadways, and natural resource management and protection standards. The citizens affirmed their support for these measures during the Comprehensive Plan Citizen Input Process, expressing strong support for protecting the environment, controlling residential growth and maintaining the 87,000 maximum build-out, enhancing the appearance of major commercial corridors, and providing landscaping in all new development. In addition, there are several large land areas in the County – including watershed property, the National Park Service property, Camp Peary, and the Naval Weapons Station – that will not likely be opened for private development and contribute to the perception of “rural” character by providing large amounts of contiguous vegetated open space.

Although “rural” probably is not the best word to describe a county that, with 500 persons per square mile, is the sixth most densely populated county in Virginia, many of the things people think of as rural – trees, open space, and low densities – are still applicable to York County and, through appropriate development techniques, can be maintained without causing undue hardship on the landowners.

A VISION FOR LAND USE

Land use in the County should contribute to the perception of a rural character in accordance with the carrying capacity of the land and present and planned infrastructure.

LAND USE GOALS AND STRATEGIES

1 Provide for orderly residential growth that would allow the County population to reach a maximum of approximately 80,000 persons.

1.1 Establish maximum residential densities as follows:

Single-Family:

- Low Density 1.0 dwelling unit per acre
- Medium Density 1.75 dwelling units per acre
- High Density 3.0 dwelling units per acre

Multi-Family: 10.0 units per acre

1.2 Revise the Zoning Ordinance and Map as necessary to conform with the 2015 Land Use Map.

1.3 Continue to require lower residential development densities in areas where public utilities are not available.

2 Maintain a balanced diversity of land uses, with minimal conflicts among different uses, in recognition of the physical characteristics of the County and the inherent capacity of the land to host different types of uses.

2.1 Apply the appropriate land use density (units per acre) and intensity (type of use) to each parcel in the County based on the property's physical characteristics and the present or planned availability of public infrastructure, facilities, and services.

2.2 In evaluating rezoning and use permit requests, consider the potential impact of the proposed development on public facilities, services, and infrastructure as well as potential fiscal impacts.

2.3 Guide specific types and densities of development to specific areas of the County through planning, zoning, and utility extension policies.

2.4 Use all available tools and techniques to defer all or part of permitted development until such time as adequate public infrastructure is in place to support the development, and seek enabling legislation to expand the County's authority in this regard.

2.5 Use the capital improvement programming process to plan and fund utility and transportation improvements that will guide industrial and commercial development to areas designated for such uses.

2.6 Prepare an annual report describing the development activity during the year, including land use patterns, rezonings, use permits, site plans, subdivision, wetlands and land disturbing permits, capital improvements programming, and the conformance of this activity with the Comprehensive Plan.

3 Consider development patterns and plans established in adjoining jurisdictions when making local land use decisions and designations.

- 3.1 Maintain “compatibility zones” in areas adjoining jurisdictional boundaries to provide for comparable zoning and development patterns
- 4 Preserve open space throughout the County such that these areas will become an integral part of the community.**
 - 4.1 Use conservation easements, clustering, and other techniques to preserve open space.
 - 4.2 Where appropriate, assist in making conservation areas accessible to citizens through the development of greenways, trails, and similar facilities.
- 5 Preserve and protect certain lands near the shoreline that have intrinsic value for the protection of water quality in the Chesapeake Bay and its tributaries.**
 - 5.1 Encourage the use of cluster development techniques for all new residential development located within the Environmental Management Area Overlay District.
- 6 Preserve, protect, and enhance cultural, environmental, and historic areas.**
 - 6.1 Implement an historic zoning district classification as enabled by the Code of Virginia to preserve and protect the historic and architectural character of Yorktown, with particular attention to the Revolutionary War battlefields and the waterfront.
 - 6.2 Enhance public awareness and recognition of York County’s role in the Civil War through the identification and preservation of significant sites.
 - 6.3 Require the identification of any and all significant historic sites on all subdivision and site plans and, to the extent practical, require the protection of such sites, depending on the extent of their significance, throughout the development process.
 - 6.4 Maintain higher standards of development at major gateways into historic Yorktown and Colonial Williamsburg, including the Colonial Parkway, Cook Road, Goosley Road, Route 17 (north of Cook Road), Pocahontas Trail, Route 143 west of Queen Creek, Route 132, Bypass Road, and Richmond Road.
 - 6.5 For any development in close proximity to the Colonial Parkway, require adequate buffers to preserve the scenic vistas from that roadway.
 - 6.6 Designate the scenic vistas along the Colonial Parkway as a “corridor protection” area as enabled by the Code of Virginia.
- 7 Enhance the visual appeal of the County’s major corridors, particularly the Route 17 corridor.**
 - 7.1 Use the following tools to improve the Route 17 Corridor:
 - preserve and protect existing mature trees to the extent feasible,
 - establish new landscaped areas within the right-of-way as well as within existing and new development,
 - maximize building setbacks so as to provide opportunities for incorporation of green areas in highly visible areas and the retention of appropriate amounts of green space in the event of right-of-way expansion,
 - establish appropriate standards to ensure visually attractive signage, display, and storage associated with business activity, and

- require the underground placement of new utilities and encourage the underground placement of existing utilities.
- 7.2 Maintain greenbelt requirements of appropriate widths to preserve trees and rural vistas along the following highways:
- Victory Boulevard (Route 171) east of Hampton Highway
 - Hampton Highway (Route 134)
 - Route 132
 - Route 199 in Lightfoot
 - Denbigh Boulevard (Route 173)
 - Fort Eustis Boulevard (Route 105) and extension
- 7.3 Require the installation of “street trees” along new roads.
- 7.4 Extend the streetscape improvements made by the City of Williamsburg along Second Street into York County.
- 7.5 Encourage the adaptive reuse of existing blighted properties.

8 Protect unspoiled vistas and views of the water.

Restrict deepwater ports to existing facilities and do not encourage expansion of industrially-related deepwater activities

FUTURE LAND USE REQUIREMENTS

The 2010 Land Use Map adopted in 1991 was based on existing development patterns, the 1983 Land Use Plan, and the goals and objectives identified through an extensive public participation process. The 2010 Land Use Map was not drawn to recognize only the market or infrastructure conditions that were in place at that time. Rather, it projected land uses considered appropriate for the year 2010 and beyond, recognizing that neither the market nor the infrastructure necessary to support some of those designations existed at the time. That continues to be true seven years later in 1998. Such is the nature of the long-range vision established by the 1991 Comprehensive Plan and in this updated plan, which extends the horizon another five years to the year 2015.

Residential

The 1991 Comprehensive Plan established a pattern of residential land use designations and densities designed to achieve a maximum build-out population for the County of 80,000. This represented a reduction from the 1983 Land Use Plan theoretical saturation population of 135,000. This was achieved partly by factoring the reduction in the average household size from 3.1 to 2.9 persons per dwelling unit. Most of the reduction, however, resulted from the removal of a certain amount of acreage that had been designated for residential development by the 1983 plan. This was done in accordance with the 1991 plan's goal of achieving an approximate 30%/70% mix of non-residential and residential tax assessments, which was determined to be the ratio that would provide the optimum levels of residential and non-residential activity to ensure that residential growth is supported by economic development that can share the tax burden for more County services. In order to maintain a generally favorable tax rate, the cost of roads, schools, and public utilities must be allocated in greater proportion to non-residential development. Also factored into the land use allocation process was the impact of new environmental legislation and regulation that has changed the way new development can occur. The needs to manage stormwater runoff, ameliorate impacts on wetlands, and address other environmental concerns often reduce or otherwise alter the scale of allowable development. This will ultimately affect the amount and manner of development the County can accommodate, particularly in areas known to be environmentally sensitive.

Once these allocations were established through the adoption of the 1991 plan, the Planning Commission and Board of Supervisors undertook the task of updating and revising the Zoning Ordinance – the primary implementation tool for the land use element of the Comprehensive Plan. This effort resulted in a number of adjustments to the residential zoning classifications and the amount of acreage devoted to each. The product of this process was a proposed zoning plan that in its initial form would have resulted in a projected build-out population of approximately 82,500. This proposal was further adjusted during the public review and hearing processes and it is estimated that the Zoning Ordinance ultimately adopted in June, 1995 will allow a maximum build-out population of approximately 87,000. It should be noted that the 87,000 build-out figure is based on the assumption that there will be no vacant units and on the 1990 average household size of 2.90. As noted in the Demographic Profile section, the average household size has been falling for decades and is assumed to decline through 2015, leveling off at approximately 2.75 persons per household. When this average household size and a realistic 5% vacancy rate are applied, the 87,000 build-out population falls to 78,300. Finally, the build-out population is further inflated in that it assumes that all residential land will be developed at its maximum allowable density, which is rarely if ever the case.

Commercial/Industrial

In conjunction with the Industrial Development Authority, the County has taken steps to establish a fiscal balance by ensuring that opportunities are available for new businesses and industries and to retain and expand existing businesses. The County is in an excellent position geographically to be a preferred site for new office and business service development. Similarly, new retail and tourist commercial activity is likely to be drawn to the County as residential and tourism growth continues. Consequently, the 1991 plan increased the amount of developable acreage for commercial and industrial uses.

As shown in **Table 7**, the County has approximately 3,500 undeveloped acres of non-residential land. This does not include land designated for Mixed Use, even though it is anticipated that much of this acreage will be developed for non-residential use.

LAND USE DESIGNATIONS

The following land use designations have been used in developing the Land Use element. Although general in nature, these designations will provide guidance for any changes to the more specific zoning regulations and zoning district locations and boundaries that implement the Comprehensive Plan. It must be clearly recognized that development in accordance with these designations, as they apply to a specific area, may be appropriate not at this time but only after certain improvements and infrastructure are completed. Since some of these improvements may require public investment, the appropriate timing for development will be closely related to capital improvements programming by the County and State.

The Census Tract Land Use Maps depict environmentally sensitive features, including wetlands, steep slopes, floodplain areas, and Chesapeake Bay Preservation Areas. This is to recognize and encourage the proper use, management and/or protection of vast amounts of sensitive and unique lands within York County that contribute positively to the economy of the region and the environmental quality of the County and the Chesapeake Bay. These are generally areas that may not be developable under current laws, areas where development may cause environmental degradation, areas that may present significant obstacles or hazards to indiscriminate development, and areas directly affected by nonpoint source pollution. Specifically, it is intended to encompass coastal and inland marshes, areas with slopes in excess of 15%, and low-lying floodplains.

Conservation

This designation is intended to recognize and ensure the protection of the vast amounts of parkland, watershed areas surrounding current or potential public water supply reservoirs, and similar reserved areas which, for the most part, are in a natural state and therefore contribute positively to the perception of a rural atmosphere. The Conservation designation is intended as a policy statement to indicate the County's commitment to the proper management and protection of these sensitive and unique areas. While many of these areas are controlled by the Federal or State government and are not subject to local land use regulations, such areas should, in most situations, be placed in the least intense zoning classification to ensure their proper management and protection. This will ensure that almost any development, unless it is of extremely low intensity, will be reviewed by the Planning Commission and the Board of Supervisors through the rezoning process.

2015 LAND USE SUMMARY		
LAND USE DESIGNATION	GROSS ACREAGE	UNDEVELOPED ACREAGE
RESIDENTIAL		
Low Density	12,490	4,070
Medium Density	5,290	1,550
High Density	3,030	720
Multi-Family	1,120	80
TOTAL RESIDENTIAL	21,930	6,420
BUSINESS		
Limited	360	100
General	1,640	410
TOTAL COMMERCIAL	2,000	510
INDUSTRIAL		
Limited	1,000	100
General	2,110	980
TOTAL INDUSTRIAL	3,110	1,080
ECONOMIC OPPORTUNITY	3,830	1,900
CONSERVATION	14,000	NA
MILITARY	20,300	NA
GRAND TOTAL	65,170	9,910
<i>Note: Undeveloped Acreage includes all lands classified as Vacant or Agricultural in the 1999 Existing Land Use Map.</i>		

Table 7

The amount of undeveloped residential acreage shown in **Table 7** overstates the true amount of residential land available for development. The 1991 plan included a Resource Management and Protection land use designation, which was intended to recognize areas with environmentally sensitive features such as steep slopes, wetlands, and Chesapeake Bay Preservation Areas. Since protection of environmentally sensitive features is not a land use per se, the updated plan does not recognize these features as such. The deletion of this designation increases the

amount of residential acreage, even though much of this land cannot be built upon. The Resource Management and Protection designation is implemented through the Environmental Management Area overlay district provisions of the Zoning Ordinance, so the elimination of this designation has no net effect on residential development potential or the County's maximum build-out population.

Military

This designation recognizes the vast amounts of military property in the County even though such installations are not subject to local land use regulations. Several of these installations also have environmentally sensitive areas that would limit development opportunities if transferred to private ownership. Consequently, such areas should be placed in the least intense zoning classification to emphasize the County's interest in ensuring their proper management and protection.

Single-Family Residential

The three single-family residential designations are based on density (number of housing units permitted per acre of land) and are intended to recognize and continue the existing range of single-family densities in the County. Although each of the three density ranges probably will primarily provide traditional single-family detached housing types, proposals involving clustering of single-family detached housing should be encouraged in order to maximize open space retention, reduce impervious surface, and provide efficiency and cost savings in infrastructure construction.

This plan has defined allowable development density in terms of gross acreage and all of the future population projections are based on this definition. However, since undevelopable areas such as water bodies, wetlands, marshes, major power transmission rights-of-way, and other similarly situated areas should be excluded from single-family lots, the use of clustering is preferred to conventional subdivision. This technique will preserve the environmental amenities that make York County special and can be accomplished by establishing appropriate lot size criteria for conventional subdivisions while controlling cluster subdivisions through density.

With respect to the establishment of specific residential zoning classifications, it is intended that a range of residential density opportunities be made available. In this regard, the density guidelines established herein should be interpreted with a degree of flexibility when determining the range of lot sizes that are consistent with and can implement a particular density designation. Furthermore, the definition of permitted densities should not be construed to preclude consideration of higher-density single-family detached housing through the planned development process, subject to public hearing requirements and review by the Planning Commission and the Board of Supervisors.

Flexibility is also appropriate with respect to the development of small vacant "infill" parcels that are essentially surrounded by development having a density in excess of that prescribed. Such "infill development" flexibility should be exercised only in situations where logical and efficient subdivision and provision of public utilities would be difficult in strict accordance with the established density designation. In no case should such an interpretation be made that would circumvent the overall Land Use goals and objectives or allow the extension of inconsistent development densities into essentially undeveloped areas.

LOW DENSITY:

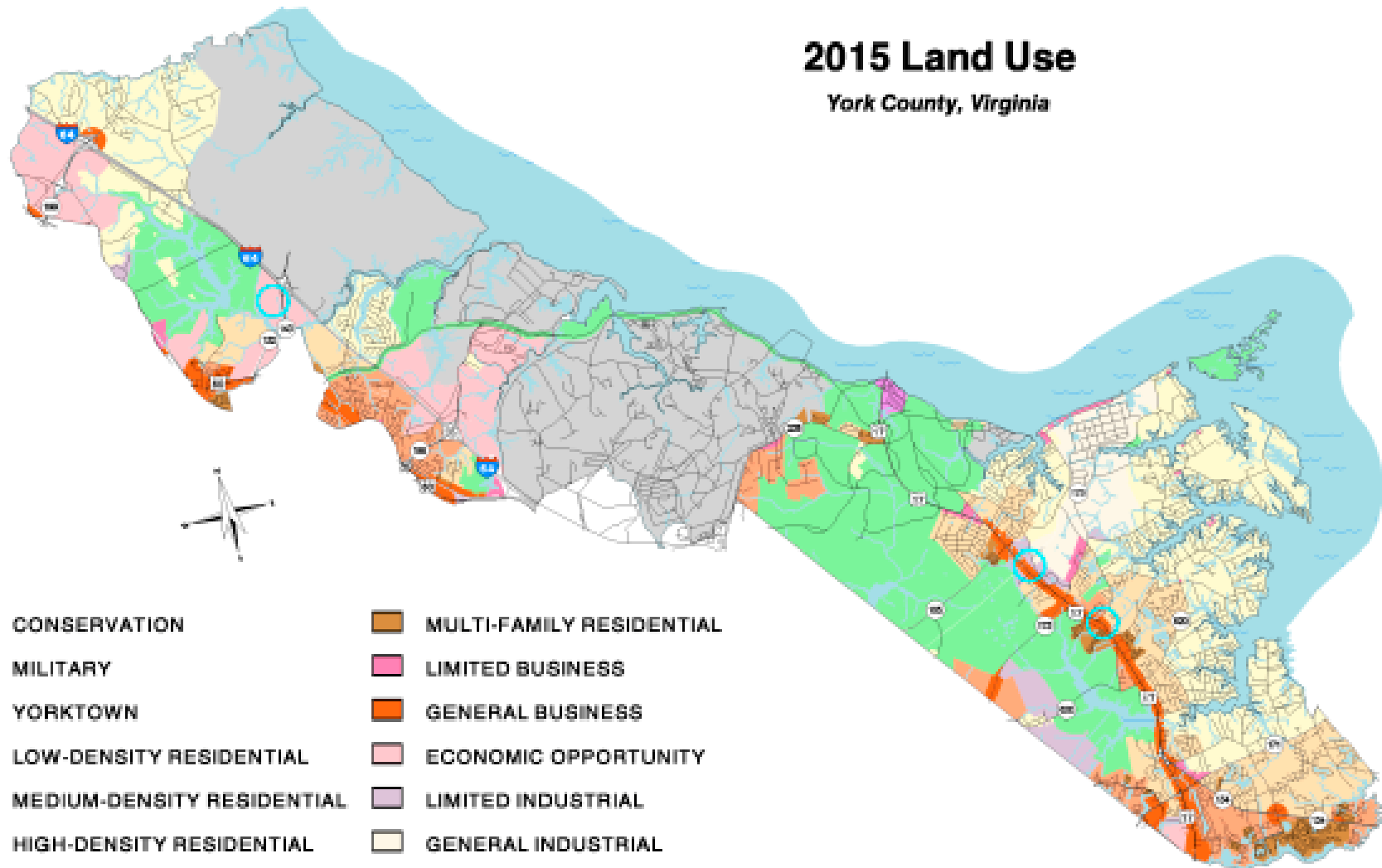
This designation is intended to provide opportunities for single-family detached housing having a maximum density of **one dwelling unit per acre**. Low-density development is appropriate in areas where public services and facilities are limited and/or physical or environmental constraints are prevalent.

MEDIUM DENSITY:

This designation is intended to provide opportunities primarily for single-family detached housing having a maximum density of **1.75 dwelling units per acre**. Medium-density development typically generates

2015 Land Use

York County, Virginia



November 22, 1999
Prepared by York County
Computer Support Services

Indicates Potential Area
for Mixed-Use Development

moderate demands on public services and facilities and should be located in areas where such services will be adequate and environmental constraints will not present development problems.

HIGH DENSITY:

This designation is intended to provide opportunities for single-family housing having a maximum density of **three dwelling units per acre**. The high-density development envisioned by this designation can be expected to generate intensive demands on public services and facilities and should be located with careful consideration given to the availability and adequacy of public services, transportation facilities, and commercial centers.

Multi-Family/General Residential

This designation is intended to recognize and encompass those areas of the County that are particularly suitable for residential development at a maximum density of **ten units per acre**. The high-density development envisioned by this designation can be expected to generate very intensive demands on public services and facilities and should be located accordingly. This designation is intended to provide opportunities for a variety of multi-family housing types such as garden apartments and townhouses. In addition, it is the intent of this designation to provide opportunities for the establishment of manufactured home subdivisions through use permit provisions or other appropriate review techniques intended specifically to evaluate the impact of such development on the surrounding area.

Mixed Use

There is no specific Mixed Use designation; however, there are certain areas of the County that have been identified as being potentially appropriate for some type of mixed use development. This is intended to provide opportunities for development that includes a mix of different types of uses – commercial, industrial, and residential – within the same development that are physically and functionally integrated with one another and developed under a unified, coherent master plan. The mix of uses must provide for a positive fiscal impact; in other words, the balance of nonresidential and residential uses must be such that the net revenues generated by the former more than compensate for the net expenditures generated by the latter. Furthermore, care should be exercised in evaluating any proposed mixed-use developments to ensure that the introduction of a residential component into these areas, most if not all of which are designated for *nonresidential* development, will not significantly affect the County's maximum build-out population of 80,000.

The identification of specific areas for mixed use should not be construed as excluding other areas from consideration for mixed-use development, nor should it be construed as a guarantee that a mixed-use development, if proposed in one of these areas, would necessarily be approved. The intent is to *expand* rather than *limit* development opportunities in these areas.

Limited Business

This designation is intended to provide opportunities for uses such as business or professional offices, and research, development and training facilities.

It is also intended to provide small, widely scattered development opportunities for various types of neighborhood commercial activities oriented primarily toward serving the day-to-day needs of residents of nearby areas. The scope of commercial activities permitted should be limited so as to discourage substantial traffic from outside the immediate neighborhood. Because of this limited scope, this designation is appropriate within, or in close proximity to, residential neighborhoods.

This designation is also intended to recognize and continue to provide opportunities for various types of activities requiring access to the water. These types of activities have historically been conducted in such areas as Waterview, Seaford, Dandy, and Dare, and their locational requirements often dictate that they be within or in close proximity to established residential neighborhoods or in areas with limited surface transportation access.

General Business

This designation is intended to provide opportunities for retail and other commercial uses oriented primarily toward supplying goods or services for a community or regional market. The scope of commercial activities envisioned by this designation would include uses that need access to arterial highways and outdoor display or storage of goods or materials. The high intensity activity levels envisioned by this designation dictate that it be located with a full understanding of the potential impacts on adjacent residential and commercial development and traffic and circulation patterns.

Economic Opportunity

This designation is intended to guide a mix of commercial, tourist-related, and limited industrial uses to certain portions of the County that have or are planned to have the access and infrastructure necessary to support both capital- and labor-intensive uses. The imposition of open space, landscaping, and buffering requirements that exceed the otherwise acceptable levels may be appropriate. The employment benefit to the County should be positive and enhance the tax base by increasing the County's fiscal strength. The unique nature of the Economic Opportunity designation excludes uses that may conflict with or detract from the activities proposed.

Limited Industrial

This designation is intended to provide opportunities for a variety of industrial activities of low to moderate intensity. Industrial activities envisioned for this designation are those whose operations and/or characteristics will have relatively low impacts in terms of smoke, noise, vibration, or similar factors. Desirable features of areas encompassed by this designation would include utility availability, highway access, rail service, and favorable soil conditions.

General Industrial

This designation is intended to provide opportunities for a variety of industrial activities whose operations and characteristics may necessarily involve significant levels of odor, noise, vibration, traffic and other conditions that may adversely impact surrounding land uses. Desirable features of areas encompassed by this designation would include full transportation access (highway, rail, water, air), available utilities, and favorable soil conditions.

LAND USE DESIGNATIONS – SUB-AREA DESCRIPTIONS

Each of the County's ten Census Tracts is described and the specific land use designations for the Tract, or for sub-areas within each Tract, are discussed in detail in the following pages. The Route 17 corridor, which runs through six different Census Tracts, is discussed separately.

ROUTE 17

The Route 17 corridor has been recognized as being worthy of special consideration and discussion. Extensive information and planning recommendations are established for this corridor in the separate [Route 17 Corridor Master Plan](#), dated January 9, 1996, which is incorporated by reference as a part of the York County [Comprehensive Plan](#).

Route 17 (George Washington Memorial Highway) is the County's major commercial corridor and is designated mostly for General Business development, with some exceptions. The special Yorktown designation has been applied to the segment that runs through the historic village of Yorktown (i.e., between the Coleman Bridge and Alexander Hamilton Boulevard). Between Yorktown and York High School (Falcon Drive), the Route 17 corridor is surrounded by the Colonial National Historical Park, which is designated Conservation. From York High School to Cook Road, this corridor is designated for Limited Business development. This less intense commercial designation is intended to recognize several

existing professional offices along Cook Road, to encourage the continuation of the development character already established by these uses, and to protect the adjacent residential areas from the adverse effects of more intensive commercial development. Similar low-impact commercial uses will provide a smooth transition between the more intense retail uses along the southerly portion of Route 17 and the Park Service property. This segment of Route 17, which is predominantly undeveloped, serves as a gateway into the historic area. Commercial activities should be encouraged to pay extra attention to landscaping and site aesthetics, especially in recognition of the relative proximity of this area to Yorktown.

Areas along Route 17 that have been identified as having potential for mixed-use development include the area of Grafton Drive and the Fort Eustis Boulevard intersection. As noted in the Route 17 Corridor Master Plan, nearby land uses and the configuration of adjacent parcels give these areas potential for some type of mixed use development.

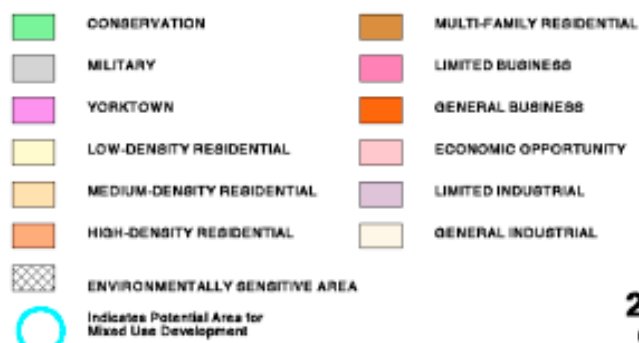
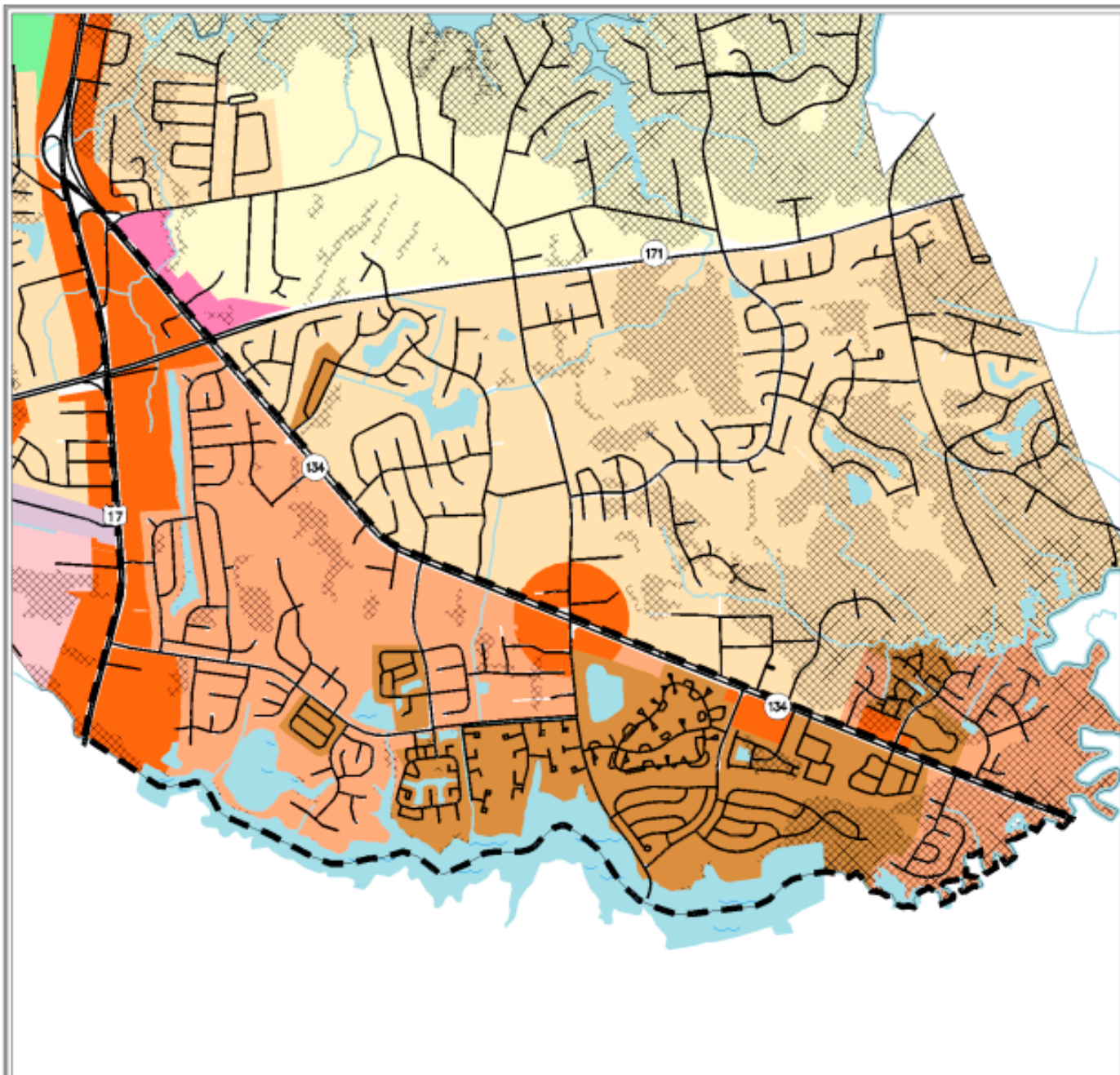
CENSUS TRACT 502.01	
Location:	Located at the southern end of the County, Census Tract 502.01 is bounded by Routes 17 and 134, Big Bethel Reservoir, and the cities of Newport News and Hampton.
Existing Land Uses:	<ul style="list-style-type: none"> • Small-lot single family detached housing • Townhouses, duplexes, and apartments • Bethel Manor Housing Complex (Langley Air Force Base housing) • Commercial development along Route 17
Public Facilities:	<ul style="list-style-type: none"> • Bethel Manor Elementary School • Coventry Elementary School • Tabb Library (future)
Utilities:	<ul style="list-style-type: none"> • Public water and sewer available
Environmental Constraints:	<ul style="list-style-type: none"> • Hydric and poorly drained soil conditions • Wetlands • Reservoir (Big Bethel) • 100-year Floodplain
Road/Access Conditions:	<ul style="list-style-type: none"> • Excellent access to I-64 via Victory Boulevard • Peak-hour congestion along Hampton Highway • Victory Boulevard will need to be widened from Route 17 to Big Bethel Road

Land Use Designations:

With over a thousand new housing units built since 1990, Census Tract 502.01 has experienced significant residential growth in recent years. Much of this area has been designated for High-Density Residential development in recognition of the existing development pattern and the availability of utilities. Most of the area located east of Big Bethel Road and south of Route 134 has been designated Multi-Family Residential because of the prevalence of multi-family development.

Several junkyards along Route 17 in this area detract from the corridor's overall appearance. Elimination of these nonconforming uses should be a major objective of the County wherever possible. Completion of Coventry Boulevard, with a signalized intersection at Route 17, will provide an opportunity for the establishment of a commercial node in this location. Accordingly, the depth of the General Business designation in this area is greater than elsewhere on Route 17.

Additional commercial development in this area is proposed to be concentrated around the Big Bethel Road/Hampton Highway intersection. This type of nodal commercial development has the advantages of limiting the number of curb cuts and encouraging an economically efficient concentration of uses on commercial sites. Small and scattered individual parcels, in contrast, hinder internal circulation, cause deterioration of roadway capacity and can create a "strip" commercial atmosphere. The preferred development within this node includes concentrations of commercial activity such as typically found in shopping centers and small office centers. In addition, two smaller commercial nodes have been



2015 Land Use
Census Tract 502.01



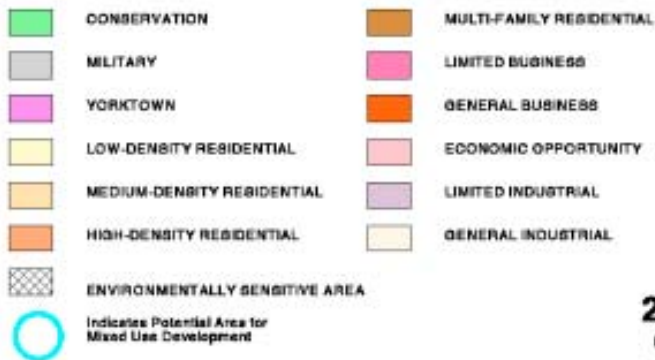
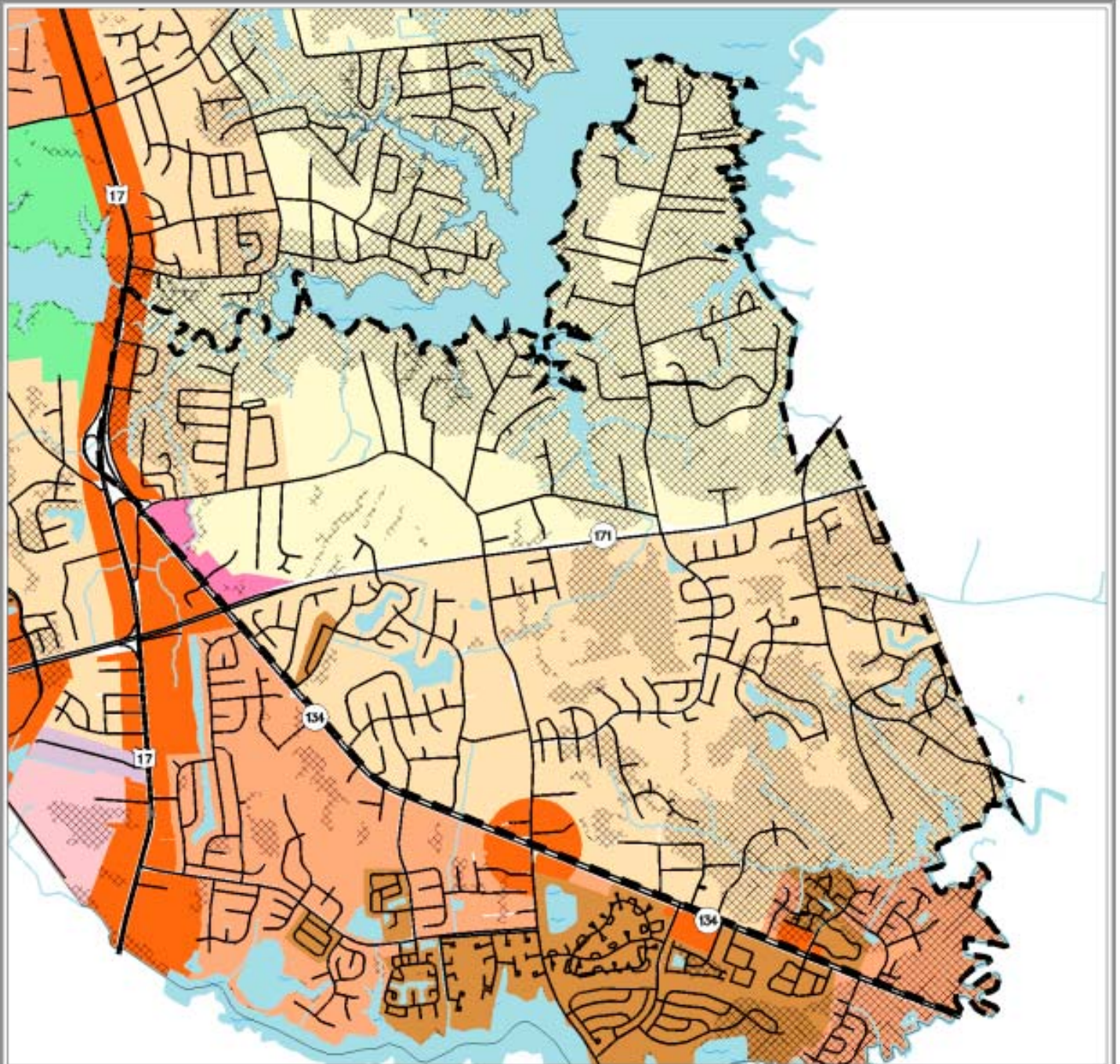
designated along Route 134 at the York Downs Drive and First Avenue intersections in recognition of existing or approved commercial activities; however, commercial development at these intersections should not be permitted to spread along Route 134.

CENSUS TRACT 502.02	
Location:	Bounded on the east by the City of Poquoson and Lamb's Creek, on the north by the Poquoson River, on the west by Route 17 and on the south by Route 134.
Existing Land Use:	<ul style="list-style-type: none"> • Large- and medium-lot single-family detached residential development • Townhouses and condominium apartments in Yorkshire Downs; townhouses in Meadowlake Farms • York Pointe Apartments
Public Facilities:	<ul style="list-style-type: none"> • Mount Vernon Elementary School • Rodgers A. Smith Landing • Tabb Elementary School • Tabb Fire Station • Tabb Middle School • Tabb High School
Utilities:	<ul style="list-style-type: none"> • Public water service generally available • Sewer serving new residential construction; remainder of area mostly on septic systems
Environmental Constraints:	<ul style="list-style-type: none"> • Hydric and poorly drained soils • Wetlands • 100-Year Floodplain
Road/Access Conditions:	<ul style="list-style-type: none"> • Excellent access to I-64 via Victory Boulevard • Peak-hour congestion along Hampton Highway • Yorktown Road is adequate as a residential collector, but not as an arterial • Victory Boulevard will need to be widened from Route 17 to Big Bethel Road • Big Bethel Road to be reconstructed

Land Use Designations:

Victory Boulevard (Route 171) has become the dividing line between low density residential development to the north and medium density residential development to the south. The proximity of the Poquoson River and Lamb's Creek and the potential adverse water quality impacts of higher density development, as well as the limited carrying capacity of Yorktown Road and the absence of public utilities, combine to warrant a Low Density Residential designation for most of the area north of Victory Boulevard. This is also true in Calthrop Neck, where the presence of wetlands, waterways, and poorly drained soils support the need to maintain this area's rural character. Much of this area falls within the 100-year floodplain, providing further impetus for maintaining low-density development, even with the installation of public sewer and water. In areas south of Victory Boulevard, where public utilities are available and environmental constraints are fewer, medium density development has occurred and is recognized through a Medium Density Residential designation; like most of the Tabb area, this portion of Census Tract 502.02 has experienced significant residential development since the mid-1980s. With this growth have come public sewer and public water, but the extensions often have not directly benefited existing residents, many of whom are experiencing problems with wells and septic systems. The presence of wetlands along Wythe Creek mandates that new development be constructed in an environmentally sensitive manner. High-density and Multi-Family Residential designations have been applied on the north side of Route 134 in recognition of the existing Yorkshire Downs planned development.

Route 17 is designated for General Business development, while less intense commercial uses are envisioned along Route 134 around the Victory Boulevard (Route 171) and Yorktown Road (Route 706) intersections. These areas are designated for Limited Business, primarily because of their proximity to residential development. With landscaped buffers, the Limited Business designation provides a transitional zone between residential and intensive commercial uses across Route 134. Further residential



2015 Land Use
Census Tract 502.02



development in these areas is not appropriate because of the high traffic volumes along Routes 171 and 134, particularly at these major intersections.

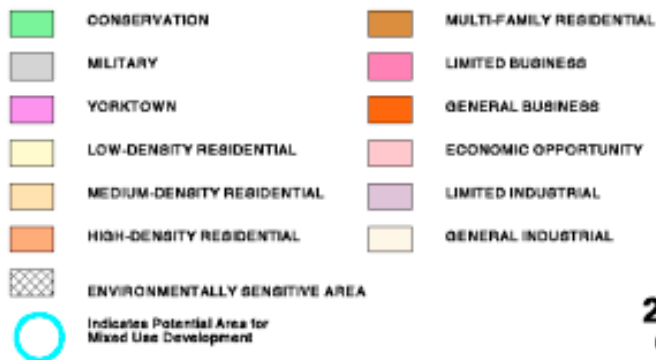
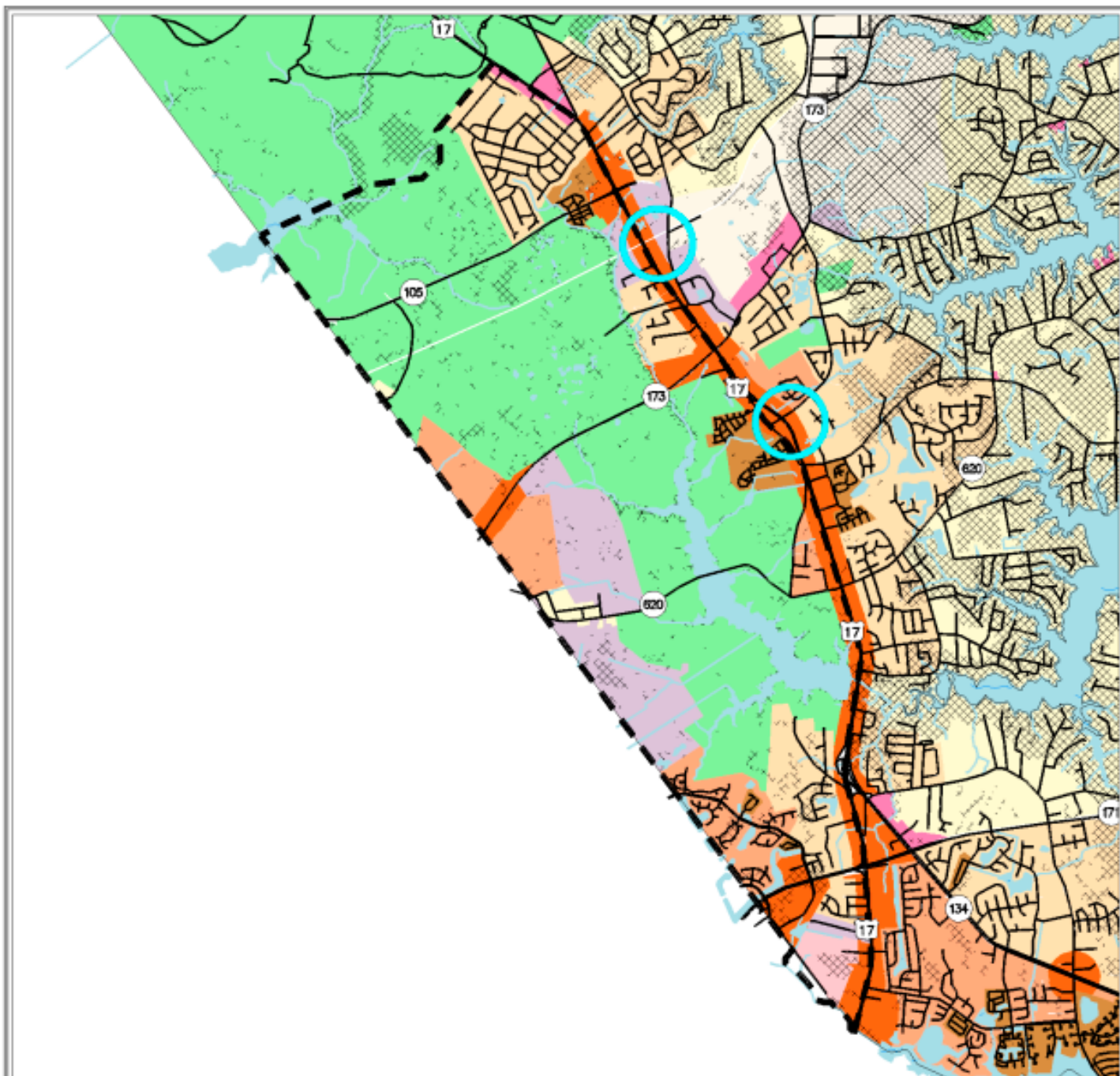
Comments pertaining to the establishment of commercial nodes along Route 134 in Census Tract 502.01 apply to this Census Tract as well.

CENSUS TRACT 503.01	
Location:	Census Tract 503.01 stretches from Edgehill subdivision almost to the southernmost tip of the County. It is bounded by Route 17 to the east, the City of Newport News to the west and south, and the Colonial National Historical Park to the north.
Existing Land Uses:	<ul style="list-style-type: none"> • Commercial, office, and light industrial development along Route 17 and Route 171 • Medium- and small-lot single-family detached residential development • Townhouses and condominium apartments • Harwoods Mill Reservoir • Newport News/Williamsburg International Airport runway and surrounding airport property • Retail commercial and services (offices) on Denbigh Boulevard • Railroad spur line to Virginia Power and Amoco refinery sites
Public Facilities:	<ul style="list-style-type: none"> • Grafton Fire Station • Grafton High School/Middle School • Kiln Creek fire station site (future) • Kiln Creek school site (future) • Yorktown Elementary School
Utilities:	<ul style="list-style-type: none"> • Public water and sewer are generally available
Environmental Constraints:	<ul style="list-style-type: none"> • Hydric, poorly, and moderately drained soils • Newport News Waterworks Watershed property • Drains toward Harwoods Mill Reservoir
Road/Access Conditions:	<ul style="list-style-type: none"> • Excellent access to I-64 via Victory Boulevard • Peak hour congestion along Route 17 from Hampton Highway to Lakeside Drive • Route 17 will need to be widened north of Victory Boulevard • Grafton Drive to be reconstructed • Fort Eustis Boulevard to be widened to four lanes

Land Use Designations:

KILN CREEK

The southern portion of this Census Tract has experienced significant change with the completion of Victory Boulevard (Route 171), which provides an east-west link between Newport News and Poquoson. Major development along this corridor includes the Villages of Kiln Creek golf course community straddling the York County/Newport News border, Cybernetics and Marriott Towne Suites, the Village Square Shopping Center, home of Super Kmart, and the Ice Palace skating rink. The Villages of Kiln Creek is recognized with a High-Density Residential designation, while the townhouse and condominium sections (The Sanctuary and Eagle Sound) are designated Multi-Family Residential. Remaining residential development in this area is designated Medium Density Residential. To the south of Kiln Creek is the Bethel Industrial Park. This area has tremendous potential for economic development and is identified as an Economic Development Priority area in the Economic Development element. Infrastructure improvements to enhance access to this area and extend public utilities could help this area realize its economic development potential, expanding the economic base with revenue-generating office, light industrial, and commercial uses.



2015 Land Use
Census Tract 503.01



WATERSHED/AIRPORT PROPERTY

Much of the land in this Census Tract is owned by Newport News Waterworks and is designated Conservation to protect the watershed. Another large portion surrounding Newport News/Williamsburg International Airport is owned by the Peninsula Airport Commission and is designated Limited Industrial in recognition of the airport and the possibility of supporting industrial development nearby. A small neighborhood on Oriana Road (Kentucky Farms) is recognized with a Low-Density Residential designation; however, additional residential development in such proximity to the airport runway is not recommended for both noise and safety reasons.

GRAFTON DRIVE

The Grafton Drive area contains a variety of land uses, including townhouses, duplexes, two County schools, and assorted retail and office development. Much of this area is designated for Multi-Family Residential development, while the remainder is designated General Business. The eclectic development character of this area create the potential for a mixed use development, and it is identified in the Route 17 Corridor Plan, which was completed in 1996, as a potential “village activity center.” It is underdeveloped and centrally located and has the semblance of a “main street” on Grafton Drive.

The remainder of this Census Tract is mostly designated for Medium-Density Residential development because of its existing development character; however, small areas on both sides of Fort Eustis Boulevard are designated for Multi-Family Residential because of existing townhouse and condominium development and to provide an opportunity for expansion of this use, particularly on the north side of Fort Eustis Boulevard because of its excellent road access and public utilities. The possibility for a mixed use development exists at the Route 17/105 intersection, which has been designated General Business (see 504.01). This underdeveloped node is designated in the Route 17 Corridor Plan as a potential “village center.” It is centrally located at the intersection of two major arterial highways. The four quadrants comprising the intersection could lead to future development as a pedestrian-oriented mix of uses anchored by commercial development, some of which is already in place.

The area bounded by Denbigh Boulevard, Newport News Waterworks property, and the Newport News city line is identified as an Economic Priority Area in the Economic Development element. A residential Planned Development with commercial frontage on Denbigh Boulevard has been approved in this area by the Board of Supervisors. Accordingly, most of this area is designated High-Density Residential, with the Denbigh Boulevard frontage designated General Business.

CENSUS TRACT 503.02	
Location:	Located in the southeastern portion of the County and is bounded on the north by Goodwin Neck Road and Chisman Creek, on the west by Route 17, on the south by the Poquoson River, and on the east by the York River.
Existing Land Use:	<ul style="list-style-type: none">• Large and medium lot size single-family detached residential development• Apartments and Townhouses• Retail commercial and office uses along Route 17• Water-oriented uses on Chisman Creek• Neighborhood commercial development at intersection of Dare and Railway Roads• Lafayette Gun Club• Borrow pits
Public Facilities:	<ul style="list-style-type: none">• Chisman Park• Dare Elementary School• Former York County Landfill• Grafton-Bethel Elementary School• York County School Board Office

CENSUS TRACT 503.02	
	<ul style="list-style-type: none"> • Wolf Trap Park
Utilities:	<ul style="list-style-type: none"> • Public water generally available • Sewer service is available in portions of the area • Dare Sewer and Water extension under way
Environmental Constraints:	<ul style="list-style-type: none"> • Wetlands • Poorly to moderately well drained soils • Abandoned fly-ash disposal sites converted to recreational use • Former County landfill • 100-year Floodplain
Road/Access Conditions:	<ul style="list-style-type: none"> • Generally acceptable along Lakeside Drive • Severe congestion on Route 17 south of Lakeside Drive during morning and afternoon peak hours

Land Use Designations:

Formerly active borrow pits are along Wolfrap Road and Lakeside Drive in this Census Tract and will ultimately need to be reclaimed. The development limitations of such land uses dictate that development, if any, be of low intensity. Consequently, these areas are designated Conservation to ensure close scrutiny of any development proposal other than very low intensity through the rezoning process.

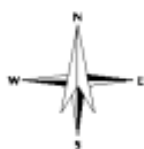
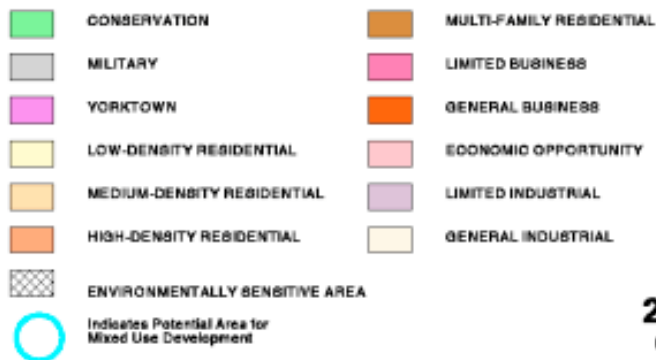
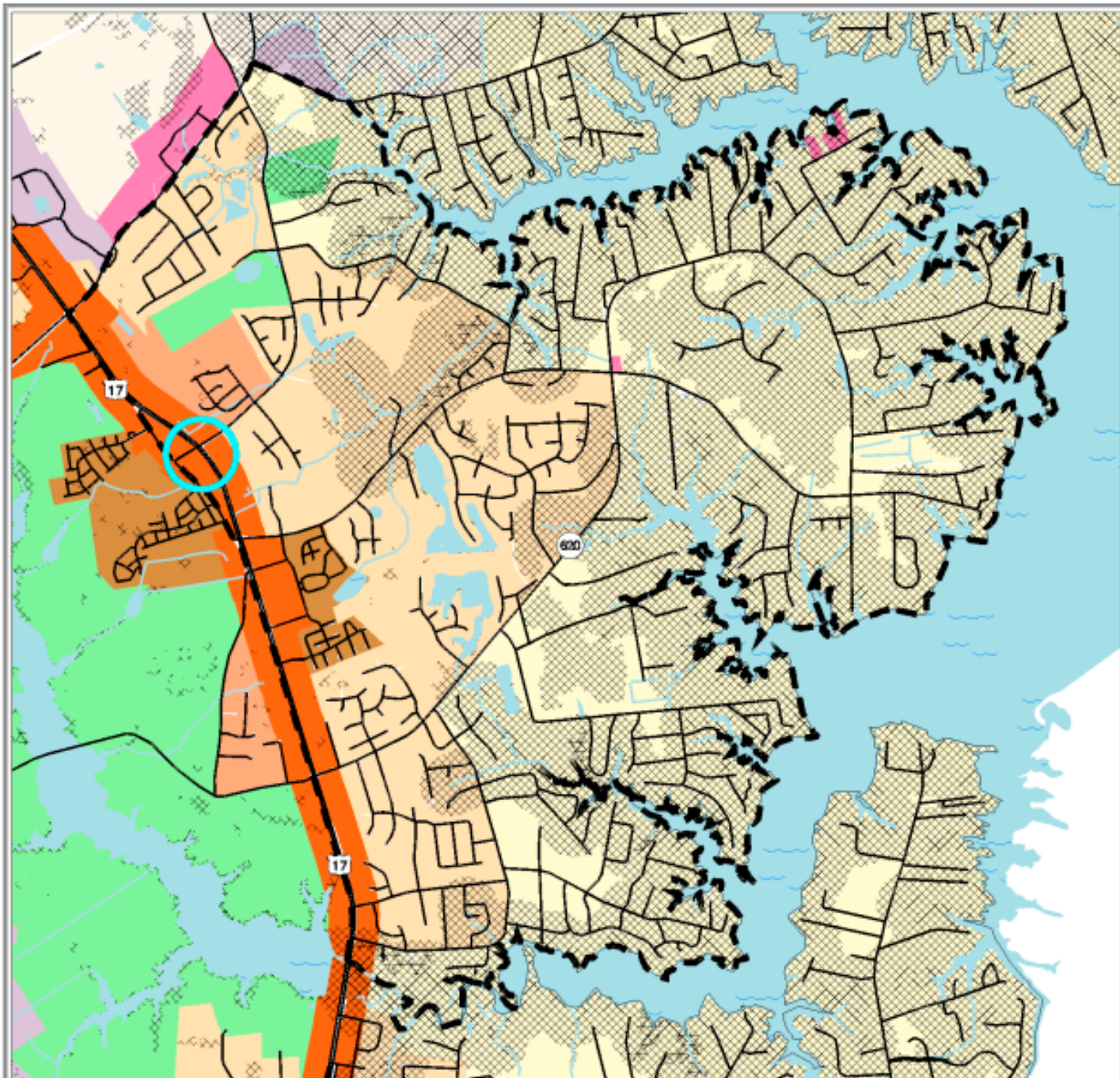
GRAFTON

The land use designations in the Grafton area east of Route 17 follow a general pattern of decreasing intensity of use from west to east. Route 17 is designated for General Business development, with a Mixed Use node at the intersection with Denbigh Boulevard and Goodwin Neck Road. Unlike the sections of Route 17 developed prior to existing regulations, any new commercial development in this area should have greater green space and landscaped areas with an emphasis on tree preservation. As developed properties are improved or renovated, increasing the amount of open space and landscaping should be a priority.

The areas immediately east of Route 17 are designated for Multi-Family and Medium-Density residential development in recognition of existing development and the availability of utilities. The Multi-Family Residential designation also provides a buffer between the intense commercial character of Route 17 and Medium-Density Residential development to the east which likewise serves as a buffer between Medium- and Low-Density Residential areas. The easternmost areas of this Census Tract are designated for Low-Density Residential development because of their proximity to waterways, environmental constraints, limited accessibility, and, least importantly, the lack of utilities. Protection of wetlands and the quality of the adjacent waterways has been the overriding factor in maintaining the low-density residential designation in these areas. Higher density development can still impose significant environmental and water quality impacts as well as increased demands on the transportation network. The only land in this area designated for High-Density Residential development is the area north of Wolfrap Road, which is relatively free of environmental constraints. The Willow Lakes planned development, which includes both single-family detached and attached housing, is currently under construction in this location.

DARE

The Low-Density Residential designation for the Dare peninsula recognizes its existing character, environmental conditions, and its limited accessibility. This density level also recognizes the potential impact development could have on adjacent Chisman Creek, Patricks Creek, and the York and Poquoson Rivers due to increased runoff and non-point source pollutant loadings. Consequently, any development that occurs must be accomplished in an environmentally sensitive manner utilizing public utilities or large lots that can accommodate individual systems. Such development patterns will help to ensure sufficient area for effluent and/or stormwater runoff filtering and cleaning. The Low-Density designation should be maintained even after public water and sewer are extended since higher density development would still be characterized by unacceptable runoff and traffic volumes. Maintaining this portion of the Allens Mill



2015 Land Use
Census Tract 503.02



area in the low density designation recognizes the need to protect Chisman Creek from increases in siltation and stormwater runoff both of which have an adverse impact on water quality.

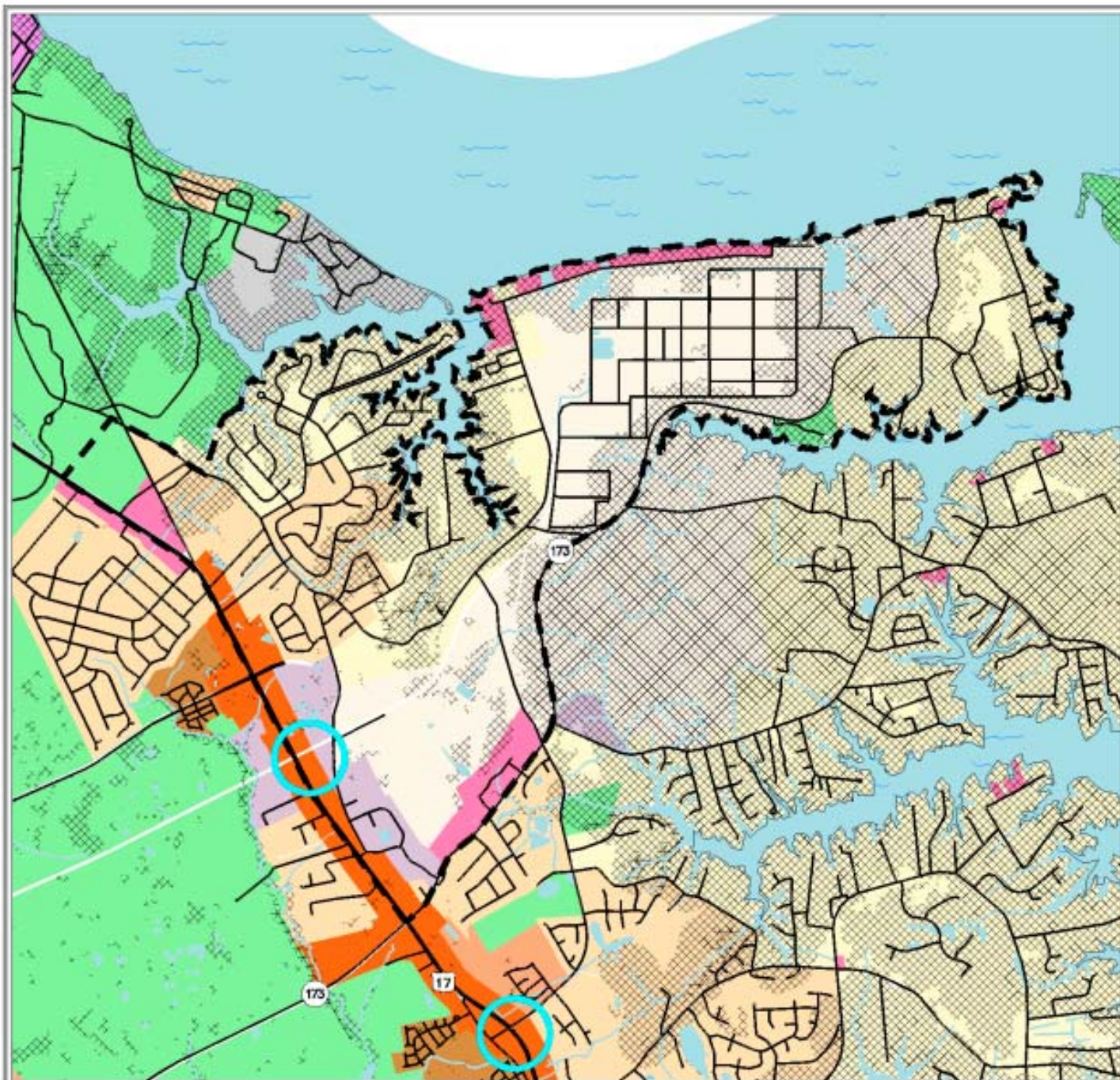
The plan recognizes, through a Limited Business designation, a small neighborhood convenience market and an automotive repair garage that serve the surrounding area. Water-oriented commercial activity is an integral part of this community and includes boat storage, maintenance and repair facilities. These also have been recognized with a Limited Business designation where they exist.

CENSUS TRACT 504.01	
Location:	Bounded on the west by Route 17, on the north by the Colonial National Historic Park, Wormley Creek, and the York River, to the south by Goodwin Neck Road, and on the east by the York River.
Existing Land Use:	<ul style="list-style-type: none"> • Large and medium lot single-family detached residential development • Water-dependent uses (marinas, boat repair) • Virginia Power plant • Amoco oil refinery • Industrial park • Commercial retail and service uses • Railroad to industrial area
Public Facilities:	<ul style="list-style-type: none"> • Back Creek Park • Wormley Creek Boat Landing • York County Operations Center • York County Public Library • York County Waste Management Center • York High School
Utilities:	<ul style="list-style-type: none"> • Public water generally available • Sanitary sewer service available in limited areas
Environmental Constraints:	<ul style="list-style-type: none"> • 100-year Floodplain • Wetlands • Poorly and moderately drained soils • Virginia Power structural fill sites • County Landfill • Shoreline erosion
Road/Access Conditions:	<ul style="list-style-type: none"> • Fort Eustis Boulevard to be extended to the intersection of Goodwin Neck and Seaford Roads • Wolftrap and Hornsbyville Roads need improvement • Generally acceptable along Goodwin Neck and Waterview Road

Land Use Designations:

GOODWIN NECK/WATERVIEW

The area encompassing the Virginia Power Plant and the Amoco refinery, which the Economic Development element designates as an Economic Development Priority Area, is designated General Industrial. A CSX railroad line traverses this area, bringing fuel and materials to these two heavy industrial users. Opportunities exist for future industrial and warehousing users to use this rail line for shipping and receiving; consequently, the rail alignment should be preserved. Water-oriented businesses along Waterview Road are recognized through a Limited Business designation. With rail access, public utilities, and direct interstate access via the planned Fort Eustis Boulevard extension, the potential for further industrial development in Goodwin Neck, which consists of several large, undeveloped parcels, is strong. However, because of extensive residential development along Hornsbyville Road, the rail line itself is the most logical dividing line between residential and industrial designations. Allowing residences to encroach on these future industrial sites would sow the seeds of future citizen discontent with their industrial neighbors.



2015 Land Use
Census Tract 504.01



A Limited Industrial designation has been applied to Victory Industrial Park in recognition of the park's character and that of adjacent parcels on Old York-Hampton Highway. This designation also encompasses lands along the CSX rail corridor where spur lines could potentially be extended for other industrial purposes. The County Operations Center on Goodwin Neck Road is designated Limited Business because it consists primarily of office uses, although there are also semi-industrial uses (e.g., auto repair, carpentry shop). This designation also provides a buffer between the heavy industrial area to the north and the residential areas on the south side of Goodwin Neck Road.

ROUTE 17/COOK ROAD

The triangular area to the north bounded by Route 17, Cook Road, and Falcon Road is designated Limited Business to recognize existing development, to protect adjacent residential development from the potentially adverse impacts of more intense commercial development, and to protect the quality of this gateway into historic Yorktown.

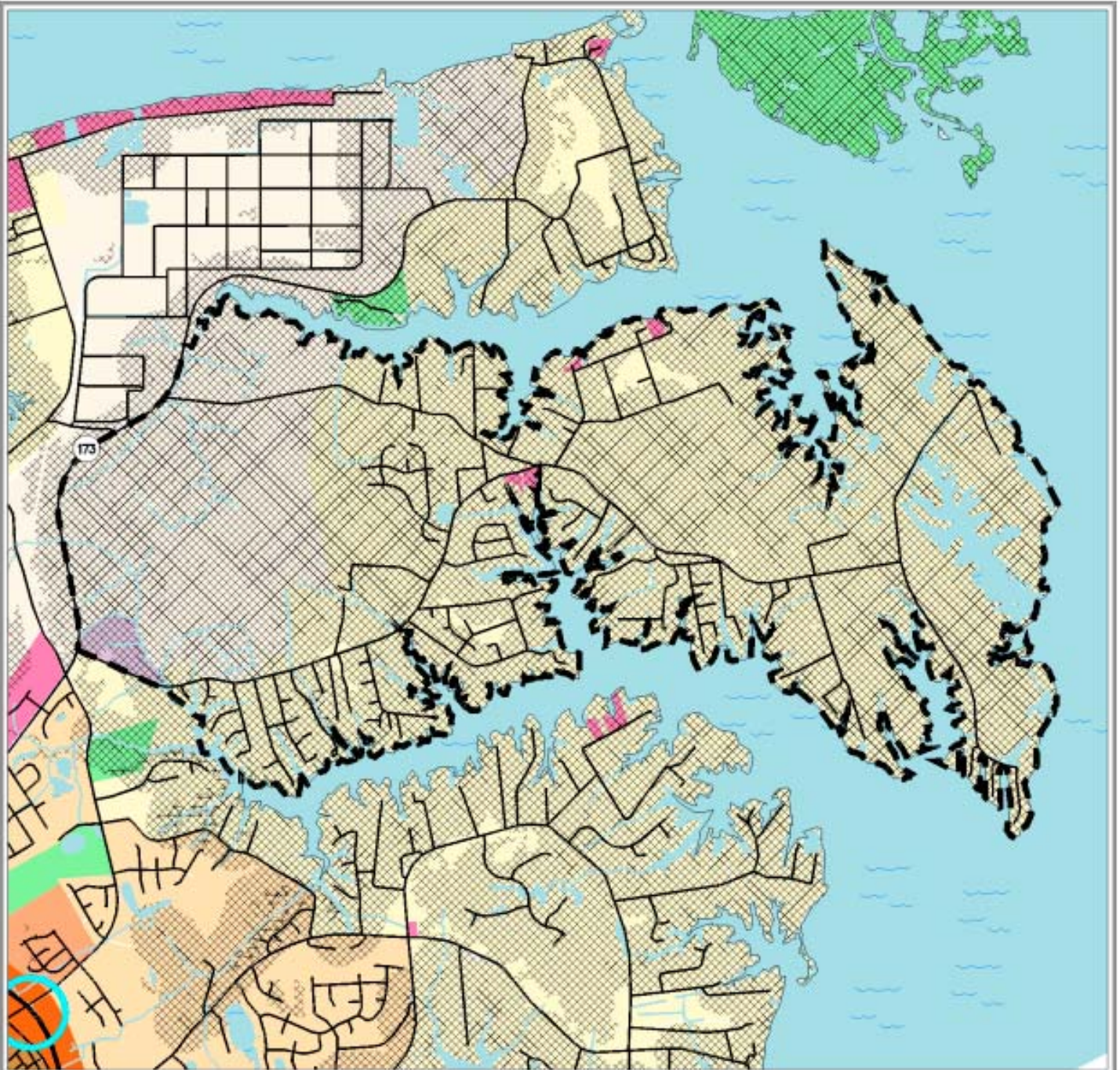
MARLBANK/HORNSBYVILLE

Most of the land north of the CSX tracks and Waterview Road is designated for residential use. Although there has been some new home construction in recent years, this area contains mostly older, established residential neighborhoods. Much of this area has been designated Low-Density Residential primarily to ensure the protection of Wormley Creek from the potentially adverse impacts of increased stormwater runoff and siltation associated with higher density development. The lack of public sewer service, combined with the need to protect the Wormley Creek basin and various other factors including the capacity limitations of Waterview, Old Wormley Creek and Hornsbyville Roads, support the low-density development patterns. Medium-Density single-family development has occurred in areas adjoining Hornsbyville Road and in proximity to public utilities and is appropriately recognized. A Low-Density Residential designation recognizes the existing development character in Marlbank Cove and the proximity of Wormley Creek. An extensive area on both sides of Wormley Creek Drive at the entrance to Marlbank Farms, and the Marl Ravine Road vicinity, has been designated Medium-Density Residential because of the development patterns occurring because of the availability of public utilities.

DANDY

The majority of the Dandy area is designated Low-Density Residential in consideration of existing development patterns and the limitations resulting from the extremely wet conditions present over much of the area. Because of the extreme wetness, the capability of the land to support additional development is limited. Even though public sewer has been extended to this area, the Low-Density designation is considered appropriate in order to protect adjacent wetlands and waterways from the increased stormwater runoff, siltation, and nonpoint source pollution associated with higher density development.

CENSUS TRACT 504.02	
Location:	Bounded by Back Creek on the north, the York River on the east, Chisman Creek on the south, and Goodwin Neck Road on the west.
Existing Land Use:	<ul style="list-style-type: none"> • Large and medium lot size single-family residential • Neighborhood commercial uses • HRSD Sewage treatment plant • Marina, seafood processing
Public Facilities:	<ul style="list-style-type: none"> • Seaford Elementary School • Seaford Fire Station
Utilities:	<ul style="list-style-type: none"> • Public water generally available • Public sewer service available only along Goodwin Neck Road and portions of Seaford Road; sewer extensions planned for existing development in Seaford to address failing septic system problems
Environmental Constraints:	<ul style="list-style-type: none"> • Wetlands • Poorly drained soils



2015 Land Use
Census Tract 504.02



	<ul style="list-style-type: none"> • 100-year Floodplain
Road/Access Conditions:	<ul style="list-style-type: none"> • Good access along Goodwin Neck Road; Seaford Road may require improvement

Land Use Designations:

SEAFORD

Much of the Seaford area is designated Low-Density Residential, based largely on the need to protect Chisman and Back Creeks from further siltation and water quality degradation, which can be attributed in part to past development patterns and practices. Although several medium-density developments exist in the area, and public water and sewer are available in certain locations, the need to encourage environmental protection is an overriding issue. Even with the availability of public water and sewer, environmental and infrastructure considerations such as wet soil, proximity to Chisman Creek and its tributaries, and poor road access dictate a Low-Density designation. Much of the York Point/Baytree Beach area consists of salt marshes and other environmentally fragile areas that must be protected from the potentially adverse impacts of indiscriminate development. Much of this land is very low and therefore susceptible to severe wetness and periodic flooding.

Undeveloped property owned by Amoco remains designated for General Industrial use. However, a permanent conservation easement (100 to 200 feet in width) along the perimeter of the Amoco property is recommended at such time as any future expansion occurs. The Limited Industrial area at the intersection of Goodwin Neck and Seaford Roads is largely developed with the Coca-Cola distribution center and there is only limited opportunity to expand. The presence of tidal and perhaps non-tidal wetlands could be an obstacle to future development in this area.

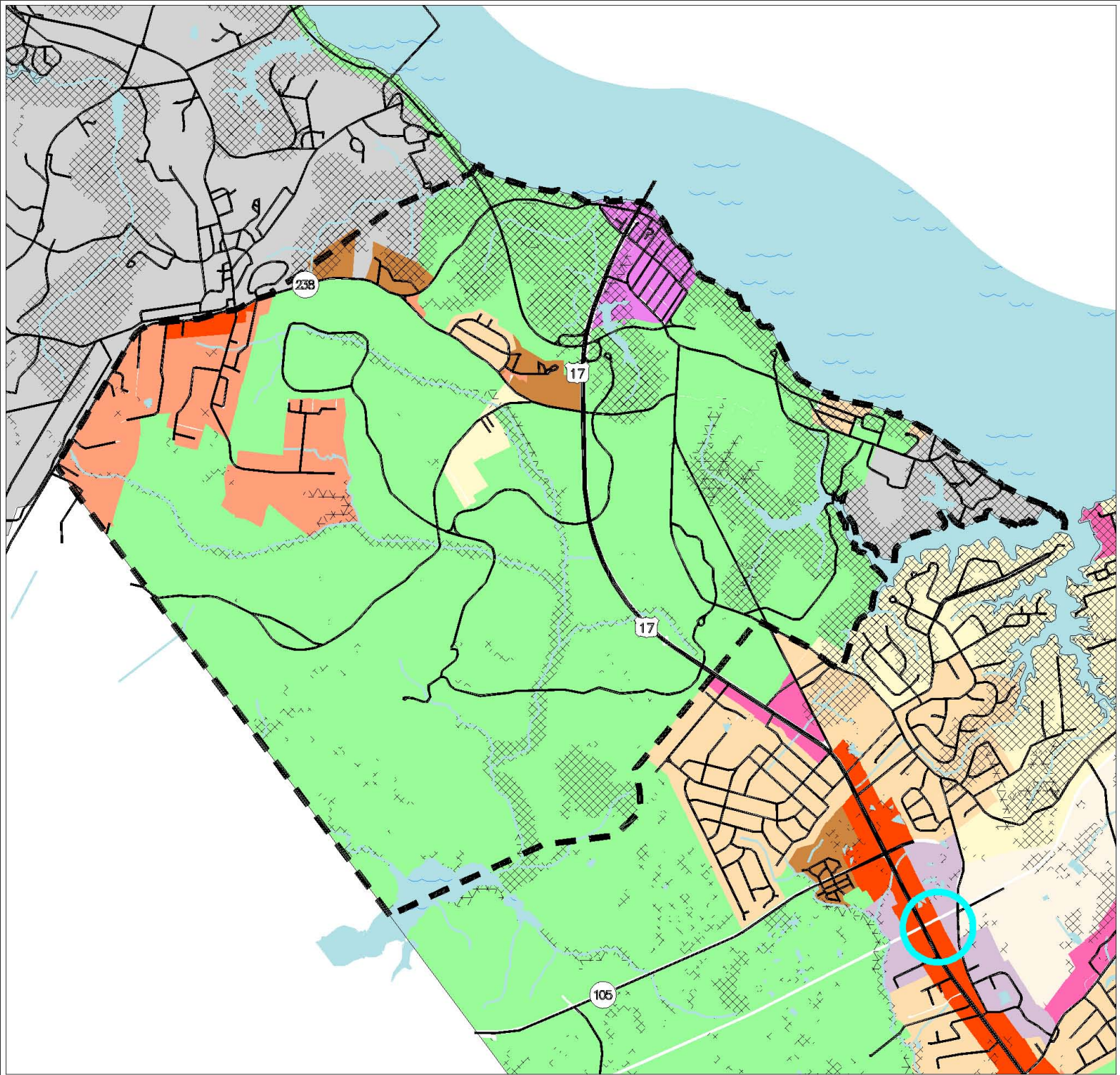
A small neighborhood store at the intersection of Seaford and Back Creek Roads serves the area and has been recognized with a Limited Business designation. Large-scale commercial development would not be appropriate in this area, although additional commercial development is possible at the Goodwin Neck Road/Seaford Road intersection upon completion of the Fort Eustis Boulevard extension.














Water-dependent uses located off of Shirley Road include Seaford Scallop, Ewell and Freeman Seafood, Mills Marina, and Calvin Hudgins Welding. These businesses, which provide support services for seafood landing and processing, boat fueling and re-supply, and boat repair operations, are designated Limited Business in recognition of the low intensity commercial use. The state dock at the end of Shirley Road does not appear to provide sufficient public access to water and consideration could be given to establishing a public use facility in this area that would accommodate the public water access needs of the community and provide for other water-related uses.

GOODWIN ISLANDS

In 1991, the Goodwin Islands became a part of the Chesapeake Bay National Estuarine Research Reserve System for the Commonwealth of Virginia. The Virginia Institute of Marine Science (College of William and Mary) has been designated by the state to manage this island. This reserve will be used by VIMS for coastal research and education and is therefore designated Conservation.

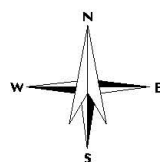
CENSUS TRACT 505	
Location:	Bounded by Route 238 on the north, the York River on the east, the city of Newport News on the west, and the Colonial National Historical Park and Wormley Creek on the south.
Existing Land Uses:	<ul style="list-style-type: none"> • Small and medium lot single-family detached housing • Single-Family attached housing (Chischiak Watch, Windmill Point) • Multi-family housing (Yorktown Village, Rivermeade Apartments) • Historic buildings in Yorktown (Grace Episcopal Church, Customs House, Dudley Digges House, Moore House, Nelson House, Sessions House, Swan Tavern) • Colonial National Historical Park and Visitors Center



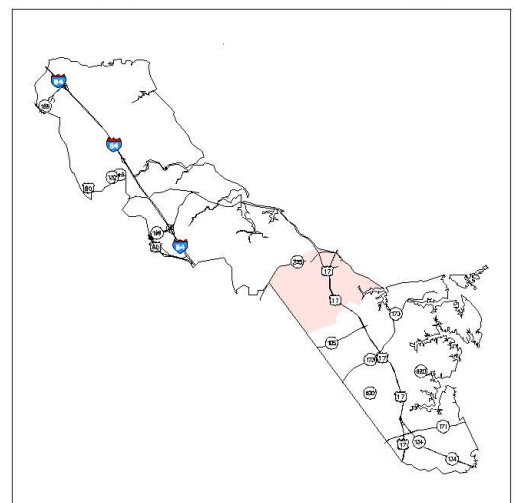
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|--|--------------------------------|---|--------------------------|
|  | CONSERVATION |  | MULTI-FAMILY RESIDENTIAL |
|  | MILITARY |  | LIMITED BUSINESS |
|  | YORKTOWN |  | GENERAL BUSINESS |
|  | LOW-DENSITY RESIDENTIAL |  | ECONOMIC OPPORTUNITY |
|  | MEDIUM-DENSITY RESIDENTIAL |  | LIMITED INDUSTRIAL |
|  | HIGH-DENSITY RESIDENTIAL |  | GENERAL INDUSTRIAL |
|  | ENVIRONMENTALLY SENSITIVE AREA | | |



Indicates Potential Area for
Mixed Use Development



2015 Land Use
Census Tract 505.00



CENSUS TRACT 505	
	<ul style="list-style-type: none"> • Yorktown Victory Center (Jamestown-Yorktown Foundation) • Commercial activities on waterfront • U.S. Coast Guard Reserve Training Center
Public Facilities:	<ul style="list-style-type: none"> • Charles E. Brown Park and Community Center • U.S. Post Office • York County Administration Center • York County Circuit Courthouse • York County Finance Building • York-Poquoson Courthouse • Yorktown Middle School
Utilities:	<ul style="list-style-type: none"> • Public water and sewer service available
Environmental Constraints:	<ul style="list-style-type: none"> • Steep banks susceptible to shoreline erosion • Poor and moderately drained soils in Goosley Road/Crawford Road area and in Lackey • Steep slopes • Wetlands in Lackey • Lackey area drains toward Lee Hall Reservoir
Road/Access Conditions:	<ul style="list-style-type: none"> • Route 17 currently scheduled to be widened to six lanes • Coleman Bridge openings cause congestion along Route 17 at bridge approach

Land Use Designations:

YORKTOWN

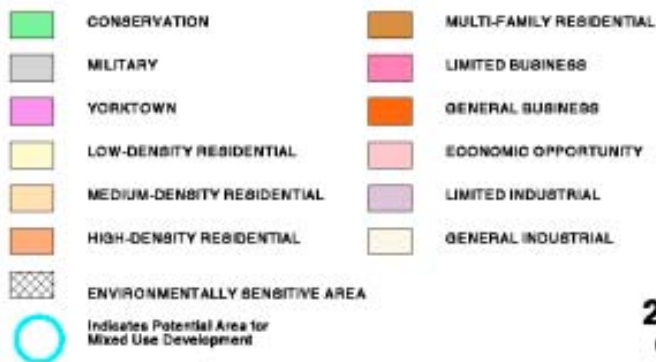
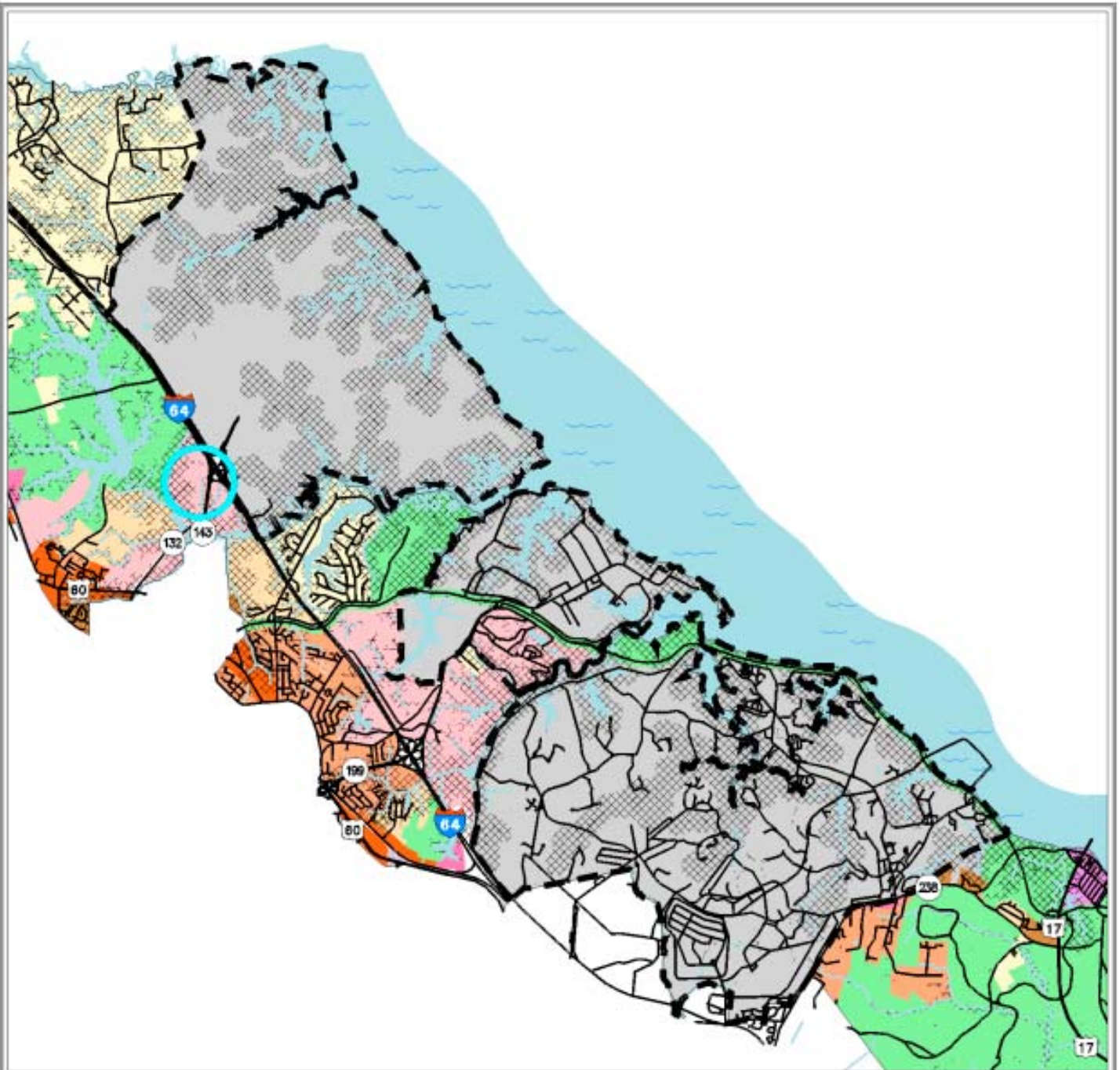
Yorktown is designated as an historical village without reference to specific land uses. The intent of this designation is to recognize the unique history of the town and to encourage development that is consistent with the historic, residential, and commercial land uses already present. The historic buildings of Yorktown are contained in The Virginia Landmarks Register, and some are listed on the National Register of Historic Landmarks. Special regulations that recognize the colonial architecture and historic heritage should be implemented to provide opportunities for a variety of land uses that will complement the unique character of the village. More specific recommendations for land uses and improvements in Yorktown are contained in the Yorktown Master Plan, which is a separate document but is incorporated as an element of the Comprehensive Plan by reference.

LACKEY

Most of the privately owned land in Lackey has been designated High-Density Residential in recognition of the existing development character. Public water and sewer serve the area. A General Business designation has been located along a major portion of Route 238 in Lackey. This designation recognizes various existing neighborhood businesses and provides opportunities for additional commercial development of this nature. In addition, the General Business designation is intended to recognize potential for the wider range of business that might be attracted to the area because of the federal HUBZone designatin that applies to Lackey (and all of Census Tract 505).

The Low-Density Residential designation has been applied to a small area along Crawford Road near its intersection with Goosley Road in recognition of existing development. This area is surrounded by NPS property, and any further development should be of a low-density character because of severely restrictive soil conditions, absence of utilities, and limited accessibility. A portion of the privately-owned land area along Goosley Road has been designated Multi-Family Residential in recognition of the Kings Court subdivision, the Yorktown Square Apartments, and Rivermeade Apartments.

CENSUS TRACT 506	
Location:	Bounded on the north by the Camp Peary boundary and James City County, on the east by the York River, on the south by Old Williamsburg Road (Route 238), and on the



2015 Land Use
Census Tract 506.00



	west by Interstate 64, Queens Lake subdivision, Busch Industrial Park, Water Country USA, and the City of Newport News.
Existing Land Uses:	<ul style="list-style-type: none"> • U.S. Naval Weapons Station-Yorktown • Cheatham Annex • Camp Peary • Former Cheatham Annex Fuel Depot Facility
Road/Access Conditions:	<ul style="list-style-type: none"> • Excellent access to I-64, with interchanges at Camp Peary, Route 199, and Lee Hall; Route 238, the Colonial Parkway, and Route 143 in Newport News (Jefferson Avenue) provide additional access to the Naval Weapons Station

Land Use Designation:

Census Tract 506 consists almost entirely of Federally owned property and therefore is not subject to local land use regulation. Accordingly, the entire area is designated Military. Although no land in this Tract is currently available for private development, there is no guarantee that this will always be the case. Military installations in the County have survived the Base Realignment and Closure (BRAC) process, but as the Armed Forces continue to cut back, there are likely to be further base closings in the future.

The only non-Federal property in this census tract the former Cheatham Annex Fuel Depot Facility, which is owned by the Commonwealth of Virginia and is comprised of approximately 460 acres, approximately 200 of which are contaminated with hydrocarbons that leaked from the fuel storage tanks. The property has been evaluated and is under a remediation plan approved by the Environmental Protection Agency. All dangerous contaminants have been removed and all of the tanks have been pumped dry. The only remaining contamination is in the soil and does not pose a human health risk. The Industrial Development Authority is exploring a private/public partnership that would allow recreational use of this portion of the property.

The uncontaminated portion of the property (260 acres) has been declared surplus by the State and is being marketed by the IDA, which has executed a contract of purchase and sale with the State and has had a development study prepared for this tract. The property contains 90-100 developable acres that are well suited for commercial development. The proximity of Water Country USA, the Kings Creek Plantation timeshare resort, and the I-64 interchange enhance the marketability of this property for tourist-oriented commercial use. Accordingly, it is designated Economic Opportunity.

CENSUS TRACT 507	
Location:	Bounded on the north by Queen Creek, on the east by Cheatham Annex and the Naval Weapons Station, and on the south and west by James City County and the City of Williamsburg.
Existing Land Uses:	<ul style="list-style-type: none"> • Small-, medium-, and large lot single-family detached residential development • Country Club Apartments • Water Country USA theme park • Williamsburg Country Club • Commercial retail and office development along Route 143 and Second Street • Light industrial uses on Penniman Road (Busch Industrial Park) and Merrimac Trail • Neighborhood commercial activities on Penniman Road • James-York Playhouse
Public Facilities:	<ul style="list-style-type: none"> • Bruton Fire Station • Griffin-Yeates Center (York County Department of Community Services offices) • Magruder Elementary School • New Quarter Park • Queens Lake Middle School
Utilities:	<ul style="list-style-type: none"> • Public water service is available in most areas • Sanitary sewer is generally available in areas south of Queen Creek and west of

	Interstate 64 and along Route 199
Environmental Constraints:	<ul style="list-style-type: none"> • Steep slopes • Wetlands • Moderately drained soils • Moderate and severe erosion potential
Road/Access Conditions:	<ul style="list-style-type: none"> • Excellent interstate access via Route 199 • Grove interchange planned for I-64 but is not designed to provide access to the north side of I-64 • Both Merrimac Trail and Second Street provide adequate access • Penniman Road will require improvement to support light industrial uses

Land Use Designations:

ROUTE 199/WATER COUNTRY USA/BUSCH PROPERTY

A vast amount of land in this Census Tract, encompassing almost the entire east side of I-64 south of Colonial Parkway as well as the Busch Industrial Park on the west side, is designated Economic Opportunity. This designation recognizes the presence of a full I-64 interchange and the potential for extension of public utilities to serve a mix of office, commercial, tourist-related, and light industrial uses. Any development proposals in this area should be subject to design and landscaping standards that will ensure protection of the scenic vistas and integrity of the Colonial Parkway. Improvements to Penniman Road will be needed to accommodate commercial and industrial traffic generators. Access to a future upriver crossing of the York River to Gloucester may traverse this area, and any development and roadway improvements should be designed accordingly. The Springfield Road/Jones Drive area along Penniman Road contains scattered residential development and is designated Low Density Residential.

QUEENS LAKE/ROYAL GRANT

On the opposite side of the Colonial Parkway, the Queens Lake subdivision has been recognized with a Low-Density Residential designation. Most of the lots in this subdivision are developed and further expansion is limited by surrounding Queen Creek, New Quarter Park, and the Parkway. The area on the opposite side of I-64 is designated Medium-Density residential because of existing development (Royal Grant subdivision) and the availability of public water and sewer. A small area of land adjacent to the Williamsburg city limits is effectively isolated from other lands in the County by a deep ravine and is designated Multi-Family Residential, consistent with adjacent multi-family development in Williamsburg.

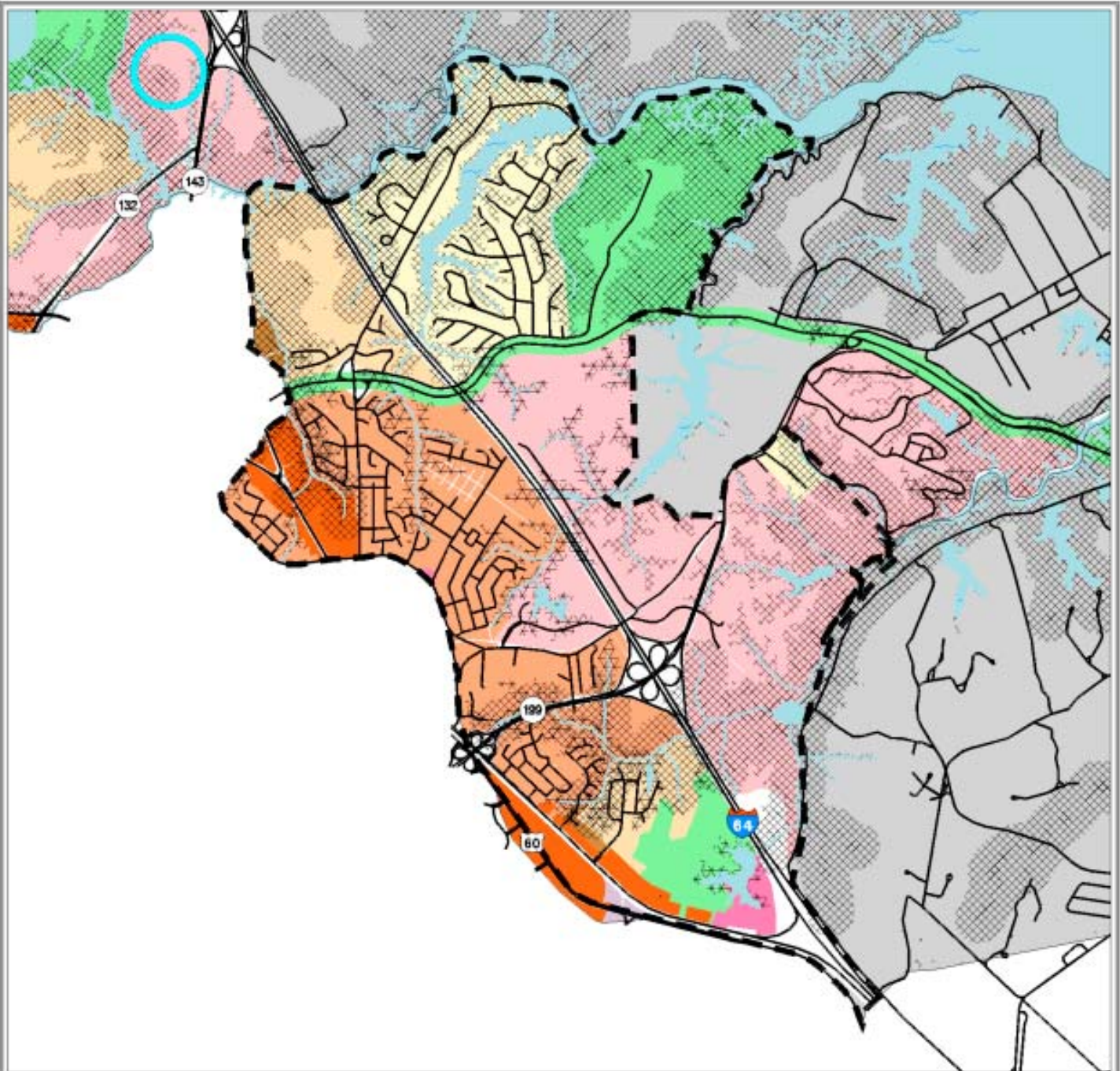
COUNTRY CLUB

The Williamsburg Country Club is designated Conservation, but a Limited Business designation has been applied to a large area east of the country club in recognition of the area's convenient accessibility to Interstate 64, the potential for extension of public utilities, and the marketing appeal and open space and aesthetic benefits associated with the adjacent golf course. In addition, the Grove Interchange (currently under construction) and existing power lines bisect this area, making residential use of the property less than ideal but providing convenient access from the interstate. Residential uses are not inappropriate, even given the proposed Grove Interchange. The interchange would, however, make office uses potentially more attractive than multi-family uses. Consequently, a mixed-use proposal combining multi-family uses with office/commercial uses, would not be incompatible with the intent of this designation. The small area in the Grove community between the CSX right-of-way and Pocahontas Trail is designated Limited Industrial in recognition of existing development.

The Country Club Apartments and Callahan Villages duplexes are designated Multi-Family Residential.

MAGRUDER

The General Business designation has been applied along the Merrimac Trail, Second Street, Pocahontas Trail corridors primarily in recognition of existing businesses and the commercial potential of properties fronting these commercial corridors. The designation along Route 60 encompasses the Busch Corporate



2015 Land Use
Census Tract 507.00



Center frontage, the Village Shops and the surrounding activities, all of which are heavily dependent on both tourist and resident traffic within the entire Williamsburg area. Landscaping improvements have been undertaken along Second Street in the city of Williamsburg and should be extended into York County.

Most of the land beyond these commercial corridors on the western side of I-64 is designated High-Density Residential. This includes the area between Penniman Road and Route 199, where there are in-fill opportunities that can best be addressed through the High-Density residential designation. The area contains some large parcels that could be subdivided into lots that are in character with the surrounding area, provided that utility and transportation network considerations are properly addressed.

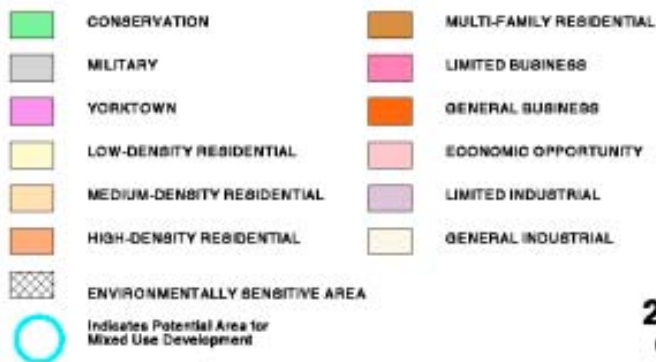
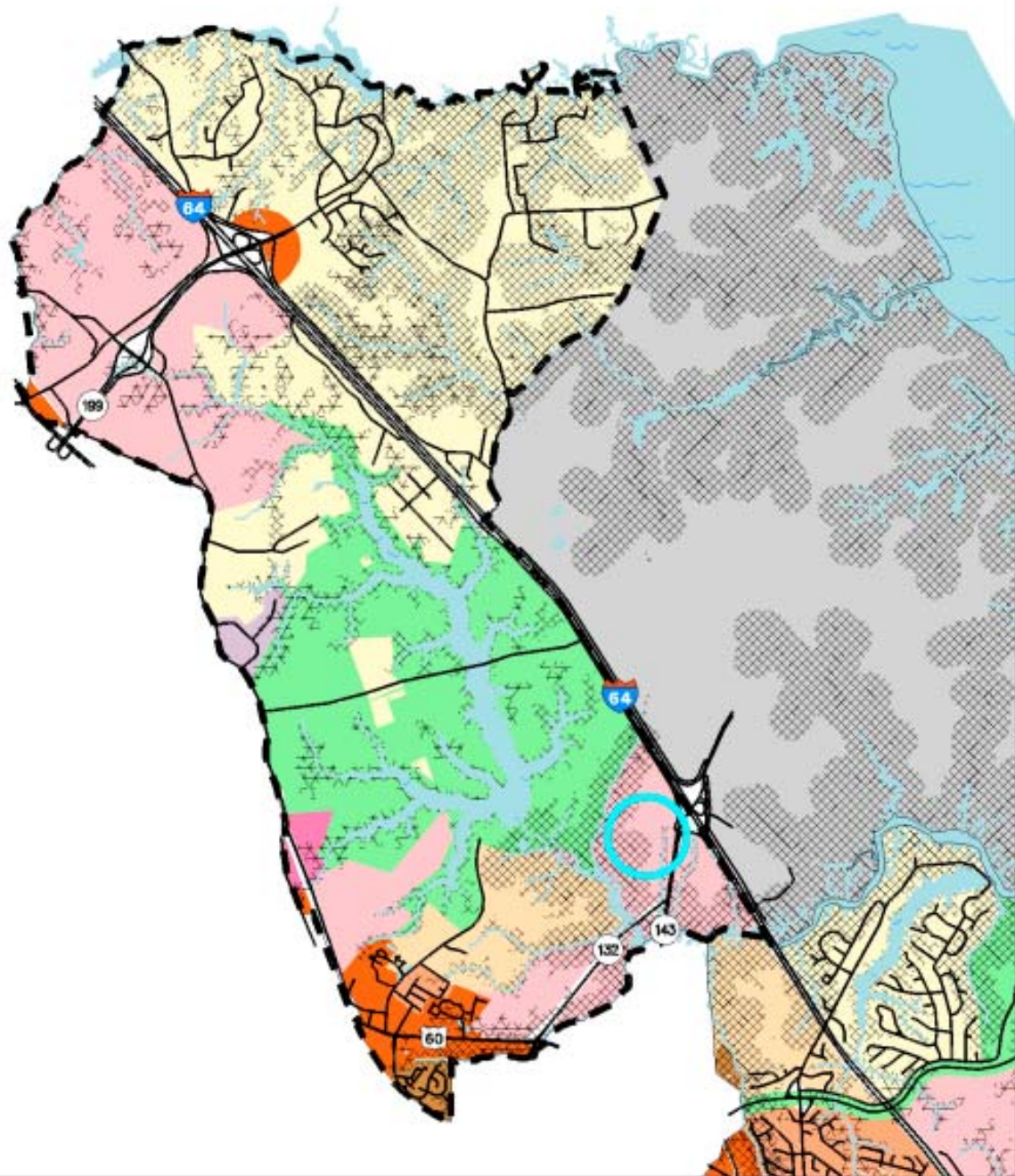
The Limited Business designation at the Penniman Road/Queens Creek Road intersection recognizes existing neighborhood commercial development. The proximity of residential development precludes significant commercial expansion; however, some additional neighborhood-oriented commercial activities are possible.

CENSUS TRACT 508	
Location:	Located in the northernmost part of the County, this area is bounded on the north by James City County and Skimino Creek, on the east by Camp Peary, on the south by Queen Creek, and on the west by James City County and the City of Williamsburg.
Existing Land Uses:	<ul style="list-style-type: none"> • Large, medium, and small lot single-family detached housing • Condominium apartments (Williamsburg Commons) • Single-family attached housing (Williamsburg Commons II) • Time-share resorts, motels, restaurants, and retail development along Richmond Road and in the Bypass Road/Waller Mill Road area • Campgrounds • Light industrial development along Mooretown Road • Waller Mill Reservoir (City of Williamsburg) • Agricultural uses in Lightfoot area
Public Facilities:	<ul style="list-style-type: none"> • Bruton High School • Historic Triangle Community Center • Skimino Fire Station • Waller Mill Elementary School • Waller Mill Park (City of Williamsburg)
Utilities:	<ul style="list-style-type: none"> • Public water and sewer are available in the Bypass Road/Waller Mill Road area. • County wells in Lightfoot
Environmental Constraints:	<ul style="list-style-type: none"> • Portions of area drain toward Waller Mill Reservoir • Steep slopes • Wetlands • Moderately drained soils • Severe erosion potential
Road/Access Conditions:	<ul style="list-style-type: none"> • Excellent access to Interstate 64 and Route 199 • Extension of Mooretown Road and completion of International Parkway will greatly enhance access • Newman Road requires improvement

Land Use Designations:

BYPASS ROAD/WALLER MILL ROAD

Located in the greater Williamsburg area, the Bypass Road corridor contains most of the County's tourist-oriented development. Bypass Road carries large amounts of tourist traffic and the area is easily accessible from all major tourist attractions and thoroughfares. Numerous motels, time-shares, and restaurants have been built in this area, yet much of Bypass Road remains under-developed. As a major gateway into the Colonial Williamsburg area, it is poised to attract more such development and therefore



2015 Land Use
Census Tract 508.00



is designated General Business. However, because of this corridor's proximity to the historic area, any new development along Bypass Road must be held to rigorous design standards – especially with regard to such features as signage, landscaping and tree preservation, and building colors – to protect the area's visual appeal. A General Business node has been established at the Bypass Road/Waller Mill Road intersection based on its excellent accessibility and existing development. Prospects for new commercial development will be further enhanced by the planned extension of Mooretown Road, which, combined with the completion of International Parkway, will ultimately provide a direct link from Waller Mill Road to Route 199 and the I-64 interchange at Lightfoot. With these improvements, office development in this area would have ready access to Williamsburg and to Interstate 64.

Existing residential development in this area is recognized with a Medium-Density Residential designation on the north side (i.e., along Waller Mill Road), and a High-Density Residential designation on the south side (i.e., Commons Way) where the Williamsburg Commons condominiums and duplexes are located.

RICHMOND ROAD

Richmond Road, which runs through Williamsburg and James City County, is the principal tourist and commercial corridor in the Williamsburg area. Some of the development along Richmond Road is located in York County. Accordingly, these properties are designated General Business.

MOORETOWN ROAD

The Economic Opportunity designation has been added to encompass the area beyond the CSX railroad tracks to the east. Access to this area is currently limited by the railroad tracks, but the extension of Mooretown Road offers a solution to this problem. Also designated for Economic Opportunity is most of the property along Route 132 between Route 143 and Bypass Road, all of which is owned by the Colonial Williamsburg Foundation. The Economic Opportunity designation is intended to recognize the excellent accessibility of this area to Interstate 64, making it potentially very attractive for office or corporate park development. However, with the right combination of landscaping, buffering, architectural and environmental sensitivity, and general design excellence, a mixed-use development could be feasible.

Watershed property surrounding the Waller Mill Reservoir owned by the City of Williamsburg has been designated Conservation in order to preserve the reservoir's water quality. A portion of this area along Airport Road is designated Low-Density Residential in recognition of the existing development, the absence of public utilities, and the proximity of the reservoir. A large area in the vicinity of the Airport/Mooretown Roads intersection is designated Limited Business. The area is conveniently accessible from Williamsburg and Route 60 via Airport Road and spur lines from the CSX railroad border the western edge of this area. Although several small light industrial activities are currently in the area, it is mostly undeveloped and contains several large parcels. However, because of the proximity of Waller Mill Reservoir and the presence of environmental constraints, further industrial development should not be encouraged until public water and sewer service are readily available to this area.

The remainder of the East Rochambeau Drive area south of Oaktree Road has been designated Low-Density Residential in recognition of the proximity to Waller Mill Reservoir and because neither public water nor sewer service is available in this area. It is recognized that a number of long established commercial uses are present, and while the existence of these activities does not justify a commercial designation along Rochambeau Road, their continuation and expansion are fully consistent with the intent of the designations in this area.

The Lightfoot area has significant commercial, office, and light industrial development potential. Additionally, the recent extension of Route 199 from this interchange with I-64 to Richmond Road and, ultimately completing the Williamsburg bypass, should make the area one of the primary entrances to Williamsburg. The construction of International Parkway, with an interchange at Route 199, enhances this potential even further. A relative few large landholdings comprise most of the property in Lightfoot. This ownership pattern, combined with the roadway improvements and the extension of public utilities to this area makes the potential for large-scale economic developments strong. For the most part, development in Lightfoot is sparse and scattered but is undergoing a transition from a sparsely developed

residential and agricultural area to a major business area. To expedite this transition, the County has made a significant investment in utilities in this area, which is designated Economic Opportunity.

SKIMINO

The Skimino area east of I-64 is in the northernmost part of the County and is one of its most rural areas. Residential lots are relatively large, and utilities are not available. The topography is severe and road conditions generally poor. The existing character should continue and thus this area is designated Low Density Residential. However, a General Business node has been designated for the area immediately surrounding the east side (i.e., Newman Road) of the I-64 Lightfoot interchange because of its excellent access, topography, and configuration. Commercial development at this node should be oriented toward serving the needs of the surrounding community rather than a regional or tourist market. Such development should be a coordinated concentration of retail service uses of a scale in keeping with the character of the immediately surrounding development. Any commercial development in this area, however, should be deferred until public water and sewer are available. It is intended that convenience stores, service stations, fast food restaurants, and other similar establishments having relatively high traffic impacts and the potential for 24-hour and late-night operation be excluded from this area unless such uses are part of a concentrated community-oriented commercial grouping developed under a single development plan. To the extent possible, all commercial development at this node should be oriented to and front on Newman Road rather than Fenton Mill Road, which should remain a residential and residential-collector roadway. A number of limited industrial uses have been established along Fenton Mill Road, but the expansion of these uses to adjacent properties would not be compatible with this area's rural character. Much of the land across I-64 between Lightfoot and the Waller Mill Reservoir also is designated Low Density Residential in accordance with the established development character and the absence of utilities.

APPENDIX A: POPULATION PROJECTION MODEL AND METHODOLOGY

The population, housing, and school enrollment projections that appear in this plan were developed by the **Forecast 2015 Committee**, which was an ad hoc committee of citizens appointed by the Board of Supervisors in 1995 specifically for this purpose. Its report, entitled Forecast 2015, and the projections contained therein were approved by the Board on January 17, 1996. Readers who desire more detailed information about the projections or the projection methodologies that were used are encouraged to review the Forecast 2015 report.

The population projection model incorporates elements of *cohort-survival*, *modified exponential*, and simple *multiplier* models to project the future age distribution, the size of the housing stock, and, most importantly, the total future population of the County. The projection of future levels of housing construction involves a *modified exponential* model of growth that assumes there exists an upper limit or ceiling to the number of housing units that can potentially be built in York County.³ Land is a limited resource, and the amount of land that can be developed residentially is limited by zoning. To project the future number of housing units, the model reduces this upper limit by the product of unused capacity (potential future units) and the rate at which unused capacity ratio, which is the rate at which undeveloped residential land *remains* undeveloped.

To calculate the increase in population resulting from the projected increase in housing units, a vacancy rate must first be applied to translate housing units into households. To this projected household total is applied an average household size, and the result is the total household population of the County. Next those residents who do not live in households must be added. These people represent the County's **group quarters population**, which includes people who live in military barracks, nursing homes, and correctional institutions. The result is the County's total population.

Assumptions

Projections are only as good as the assumptions on which they are based. The major assumptions underlying these population and housing projections are presented below:

- Land uses and residential densities prescribed through zoning and the Comprehensive Plan will not change significantly in the next twenty years.
- Fifteen percent (15%) of the available land in the upper County is undevelopable because of steep slopes.
- Approximately 80% of the available land designated RR (Rural Residential) will be developed without public utilities and thus with a minimum lot size of two acres.
- One fifth of the available land in the lower County is undevelopable because of non-tidal wetlands.
- Based on existing development, current zoning, and the infrastructure and environmental constraints noted above, the maximum number of housing units that can be built in York County is 31,400.
- In the lower County, the Unused Capacity Ratio U will fall steadily and sharply, generating a higher rate of growth than in the upper County, where the unused capacity ratio is assumed to fall, but much more slowly than in the lower County.
- As the lower County becomes more and more densely developed, the upper County will become increasingly attractive to developers and home buyers.

³See Donald A. Krueckeberg and Arthur L. Silvers, Urban Planning Analysis: Methods and Models (New York: Johan Wiley & Sons, 1974), pp. 264-266, and Richard K. Brail, Microcomputers in Urban Planning and Management (New Brunswick, NJ: Rutgers, The State University of New Jersey, 1987), pp. 66-69.

- The County's average household size will continue to decline, although relatively slowly, through the year 2005 and essentially level off thereafter.
- The County's group quarters population will remain constant at approximately 510 through 2015.
- On average, the County's vacancy rate will be 5.5% through 2015.

APPENDIX B: COMMUNITY FACILITIES

DETENTION AND LAW ENFORCEMENT EXISTING CONDITIONS

The York County Sheriff's Office is the County's chief law enforcement agency. The Sheriff's Office is funded by the State and the number of deputies is based on each locality's population. However, the Board of Supervisors has created and funds additional deputy positions beyond the State's allotment. The Sheriff also serves as court bailiff for York County and Poquoson and, until recently, oversaw the York County Jail, which was closed in 1997. This 11,500 square-foot building, which was located in the historic village of Yorktown next to the York County Circuit Courthouse, was built in 1963 and renovated in 1979 and again in 1995. Because of severe overcrowding in the jail, York County joined with James City County, Williamsburg, and Poquoson to construct the Peninsula Regional Jail to house prisoners from all four localities. The regional jail is located on Merrimac Trail (Route 143) in James City County.

York County participates in a regional Juvenile Detention Commission consisting of the eleven counties and cities from the 9th Judicial District and eight counties from the 15th District. The Commission owns and operates the Merrimac Center – a secure juvenile detention facility located on Merrimac Trail in James City County. The Merrimac Center opened in December 1997 with 32 beds and an additional sixteen beds were added in July 1998.

This 48-bed Center has classrooms, food service, medical, a gymnasium, and offices. It is a self-contained facility with 24 hour per day supervision of juvenile offenders under the age of 18. Residents are ordered into the Center by the Juvenile Courts and have committed property crimes or offenses against the person that range up to and can include murder. Residents are fed, receive medical care, counseling and are schooled throughout their confinement. The length of residence can range from a few days to several months depending upon the nature of the offense and the complexity of the adjudication by the courts.

Juveniles are released by the Courts either back into the community to a lesser level of oversight such as a group home or probation or are transferred to correctional centers operated by the Virginia Department of Juvenile Justice. The Commonwealth pays a portion of the operating costs and the member localities pay a per diem charge for each juvenile housed.

Law enforcement depends more on manpower, equipment, and programs than on buildings. The new regional jail has eliminated the overcrowding problem but does nothing to prevent crime from occurring or to make people (other than the jailers, and perhaps the inmates) feel more safe. With 2,935 reported crimes in the County per 100,000 residents in 1996, York County has one of the lowest crime rates on the Peninsula. In comparison, the 1994 Peninsula and Virginia crime rates were 5,402 and 4,074 respectively. Nevertheless, in a fast-growing locality, even a stable crime rate means the number of crimes is increasing.

VIRGINIA CRIME RATES, 1987-1996										
JURISDICTION	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Hampton	5,907	5,659	5,998	6,064	6,186	5,947	5,660	4,911	5,117	5,214
James City County	3,723	3,717	3,893	3,437	3,267	3,098	2,970	2,668	2,709	2,464
Newport News	4,978	5,670	5,698	6,027	6,912	7,248	6,896	6,224	6,276	5,540
Poquoson	1,562	2,311	1,718	1,699	1,354	1,369	1,946	1,575	1,526	1,761
Williamsburg	5,474	4,320	4,056	5,187	5,707	5,097	4,222	5,200	4,266	4,479
YORK COUNTY	2,565	3,213	2,867	2,892	3,550	3,712	3,165	2,958	2,614	2,935
VIRGINIA	3,980	4,210	4,269	4,441	4,681	4,361	4,177	4,074	4,030	3,942
<small>Note: Crime rate calculated as the number of crimes per 100,000 residents Source: Virginia Department of State Police</small>										

Table 8

CHANGES SINCE 1991

The most significant change in the area of detention and law enforcement since the adoption of the Comprehensive Plan in 1991 is the closing of the York County Jail and its replacement with the Virginia Peninsula Regional Jail, which houses prisoners from York County as well as James City County, Williamsburg, and Poquoson. The other major change is the opening of the 48-bed regional Juvenile Detention Center (Merrimac Center), which is also located in James City County and houses juvenile offenders from nineteen localities, including York County.

In addition, with the demolition of the jail in Yorktown, the Sheriff's Office headquarters has been temporarily relocated to the York County Finance Building and is scheduled to be moved to a permanent location within the County Operations Center on Goodwin Neck Road.

With regard to crime, the County's crime rate has mirrored the regional and statewide trends since 1991, falling from 3,550 to 2,935 crimes per 100,000 residents.

FIRE AND RESCUE

EXISTING CONDITIONS

The York County Department of Fire and Life Safety is responsible for the provision of Fire, Rescue, Emergency Medical Services, 911/Emergency Communications, Emergency Management, and Animal Control. The department's administrative offices are to be relocated from the Public Safety Building in Yorktown to the County Operations Complex on Goodwin Neck Road, as are the 911/Emergency Communications Center and the Emergency Operations Center. The fire and rescue field operations are conducted from six fire stations located strategically throughout the County. The department also maintains mutual aid, in-kind service agreements with surrounding localities and federal facilities that provide for the sharing of resources during emergency incidents.

The largest segment/operation within the Department of Fire and Life Safety is the provision of fire, rescue and emergency medical services from the County's fire stations. The locations of the fire stations were chosen in the late 1980s and early 1990s so as to ensure that emergency units leaving the fire station would arrive at the emergency scene in the majority of County areas within five minutes or less.

The County is vulnerable to hazards that may impact a large area and/or multiple residents. Unlike typical fires, medical emergencies and/or vehicle accidents that are often isolated to one or two buildings or individuals, disasters or major emergencies affect many more people and/or larger geographic areas. The County's Office of Emergency Management develops and maintains emergency operations plans to deal with potential large scale emergencies, such as those that might occur at the Surry Nuclear Power Station, in the event of a hurricane or other large scale weather-related event, or in the case of a significant hazardous materials incident.

The provision of 911 for the public and emergency communications for responders is critical to being able to provide quick and efficient law enforcement, fire, rescue and emergency medical services, etc. Since its establishment in 1986, the 911/Emergency Communications Center has been affected considerably by County population growth and service demands.

In order to ensure response to most potential emergencies within the County, the Department of Fire and Life Safety has developed contingencies for special incident responses, either locally or regionally. The department operates a technical rescue team out of its Yorktown Station, which is centrally located for response to both the northern and southern sections of the County. This team has evolved from what was initially a dive team to include water rescue, rope rescue and limited confined space, trench and heavy vehicle rescue. Future plans include expanding these capabilities. This team is also a part of a larger regional technical rescue team. The County is vulnerable to hazardous materials emergencies considering the roadways, railroads, waterways and proximity to the Newport News/Williamsburg Airport that exist in the County. The County's fire and rescue personnel are trained to provide defensive tactics should a spill, leak or fire occur with very limited types of hazardous materials. If the capabilities of the county are exceeded, then the regional hazardous materials response team is requested through the Virginia

Department of Emergency Services. The primary team assigned to York County is in Newport News and would respond, if available, when requested. If unavailable, the back-up team would have to respond from the Southside of Hampton Roads or Richmond areas. All of these teams use personnel normally assigned to fire and EMS vehicles and are not necessarily dedicated for just hazardous materials calls.

The Department of Fire and Life Safety coordinates and/or conducts most of the training required for its staff in the various divisions. This training, which often requires recertification at the State level, is critical to the department's continued readiness for response and service. The department participates on a regional basis for its dispatcher and firefighter recruit training and routinely conducts in-house continuing education and refresher training. Through cooperation with state agencies and other localities in Hampton Roads, the department is pursuing further expansion of its training resources with such things as dispatcher training props and a fire burn building/training facility.

CHANGES SINCE 1991

Since the adoption of the Comprehensive Plan in 1991, the County has undergone several changes in the area of fire and rescue. During this period, the Department of Public Safety was renamed the Department of Fire and Life Safety to describe more accurately the services provided by this department and its subordinate divisions. Also in the previous seven-year period, the activity levels of much of the department's operation have increased quite significantly. These changes include fire and rescue responses increasing 62%, 911 Center activity increasing 55%, and animal control incidents increasing 131%.

Some of the increased call volume in fire and rescue was anticipated when the bond referendum project was initiated in the late 1980s and completed in 1991. Furthermore, the department has overcome some of the additional impacts on the services by taking a number of measures. These include automatic external defibrillation capability placed on fire apparatus; more efficient use of properly designed rescue trucks (a capability previously identified in both the Comprehensive Plan and the County's Transportation Safety Plan); use of mechanical CPR devices called thumpers; initiation of the technical rescue component of the department using existing personnel; combined vehicle functions; and participation in the Tidewater Regional Technical Rescue Team.

Much of the activity in the 911 Center is now more effectively managed because of the implementation of new technology, such as telephone call management information systems (MIS) and interoperability of differing computer systems. Furthermore, the Emergency Communications Division of Fire and Life Safety has improved services to the citizens through the implementation of programs such as Emergency Cellular Call Boxes that are used to report emergencies in isolated areas of the County. This division, in cooperation with the County's Planning Division, has also played an integral role in the County planning process for siting cellular/PCS towers. This has resulted in shared uses of towers when appropriate, along with opportunities for improved communications capabilities for fire, rescue, and law enforcement.

Also since 1991, the County has improved its emergency sheltering capabilities. Through cooperation with the School Division, the Grafton High/Middle School complex was established as an all hazards emergency shelter. It is also equipped with back-up generator power. The Emergency Management Office has also played a significant role at the regional level in ensuring well coordinated planning and responses for those with special needs.

Finally, the department has initiated programs designed to prevent emergencies from occurring and to reduce their severity when they do occur. These include the "Heads Up" program, pre-arrival emergency medical instructions, the "Appeals on Wheels" speed awareness radar trailer, the Fall Prevention Program (designed to prevent ground level falls and personal injuries), child seat education and inspection program (C.A.R.E.) and the teaching of children about fire and life safety practices, educating them on ways to prevent fires and injuries through the S.A.F.E. (Students Apply Fire Education) Club in all of the fourth grades.

GOVERNMENT OFFICES

EXISTING CONDITIONS

Government Offices

York County has two major government office complexes with a total of ten buildings. Four of these buildings are located in Yorktown. Six additional buildings, all built in the 1990s, are part of the County's Central Operations Facility on Goodwin Neck Road, approximately five miles south of Yorktown. Adjacent to this complex is the Solid Waste Management Building, which housed landfill operations prior to the closing of the landfill in October 1993. Finally, the Griffin-Yeates Center is located on Government Road in the upper County. A listing of these office buildings is provided below:

INVENTORY OF YORK COUNTY GOVERNMENT OPERATIONS AND OFFICE BUILDINGS			
NAME OF BUILDING	YEAR BUILT/REMODELED	LOCATION	BUILDING GROSS AREA (SQUARE FEET)
Administration Center	1922 and remodeled several times	Yorktown	17,200
Building and Grounds Maintenance Building	1992	Operations Center	12,800
Court Legislative Building (formerly the Circuit Courthouse)	1955 (Scheduled for renovation in 1998)	Yorktown	16,941
Finance Building (formerly the District Courts Building)	1980 (Scheduled for renovation in 1998-1999)	Yorktown	23,664
Environmental & Development Services Main Building	1995	Operations Center	16,500
Environmental & Development Services Annex	1992	Operations Center	3,427
General Services Office Building	1992	Operations Center	3,887
Griffin-Yeates Center	1953 (expanded and remodeled several times)	Upper County	21,300
Human Services Building	1993	Operations Center	26,000
Parks & Recreation/VPI Building	1998 (under construction)	Operations Center	4,200
Public Safety Building	1958 (remodeled several times since the County acquired this former bank in 1983)	Yorktown	4,900
Solid Waste Management Center	1983 (renovated in 1996)	Operations Center	5,000
Vehicle Maintenance Building	1992	Operations Center	14,000
Note: Inventory does not include the 59,680 square foot York-Poquoson Courthouse that also has office space for the courts and court-related agencies.			

Table 9

Court Facilities

Excluding the state Court of Appeals and Supreme Court, Virginia's court system is composed of district and circuit courts. Circuit Courts have original jurisdiction in civil claims exceeding \$7,000, criminal cases involving felonies, and equity suits such as divorce proceedings, property disputes, and wills, trusts, and estate matters. They also handle appeals from the District Courts and any case for which jurisdiction is not specified in the Code of Virginia.

Virginia's unified District Court system was established in 1973 to replace municipal and county courts throughout the Commonwealth. Each city and county has both a general district and a juvenile and domestic relations court, although 55 of the smaller localities—including York County and Poquoson—have combined clerks' offices. The General District Court decides civil suits involving amounts of money up to \$7,000 and criminal cases in which a person is charged with a misdemeanor (any charge carrying a penalty of no more than one year in jail or a fine up to \$1,000). It also handles all traffic

offense cases and holds preliminary hearings in felony cases. The Juvenile and Domestic Relations District Court handles cases involving juveniles, as well as all domestic relations cases, including child/spousal support hearings, custody/visitation hearings, all cases involving the Department of Social Services dealing with abused or neglected children, and foster care cases.

This organization has the potential to change if the Family Court is created. If this occurs, the Juvenile and Domestic Relations Court will become the Family Court with exclusive trial court jurisdiction in family matters. As part of this shift, jurisdiction over a variety of types of cases—such as divorces, marriage annulments, petitions for adoptions, and judicial review of certain school board actions and certain hearing officers' decisions—will be transferred from the circuit courts to the family courts. This shift is expected to increase this court's caseload by 35-50%.

In 1997, the York-Poquoson Courthouse was constructed to house all the courts and court related agencies serving York County and the City of Poquoson. This new courthouse has 41,890 square foot of usable space and will accommodate modest growth in caseloads for all the courts and court-related agencies through the year 2015. The new courthouse has five courtrooms and is large enough to handle a Family Court if it is created. This facility also has the potential to meet needs well beyond 2014 for the following reasons:

- Technology has the potential of reducing the impact that increased caseloads and increased courthouse services will have on the size of a courthouse.
- There is a potential to expand the hours of the courthouse operations to meet future growth of services rather than construct additional courtrooms.
- If an additional courtroom is needed at some future date, it can easily be constructed on the second floor of the new courthouse if offices are relocated. This will be the most efficient and economical way to provide an additional courtroom since the existing prisoner holding facilities and building security can be used.
- The adjacent office building built in 1980 referred to as the Finance Building can be used to meet future court-related needs. For example, the court services and juvenile services units occupying 3,345 square feet, the law library occupying 920 square feet, the Commissioner of Accounts occupying 300 square feet, and the commonwealth attorney occupying 3,910 square feet could be relocated to the adjacent building to make room for expansion needs of the courts and court clerks.

CHANGES SINCE 1991

Government Offices

Since the adoption of the Comprehensive Plan in 1991, significant changes have been made to increase the amount of office space available to the County. The following summarizes these changes:

- In 1992, Phase one of the Operations Center was constructed, including the General Services Administration Building, Vehicle Maintenance Building; Building & Grounds Maintenance Building, and Environmental and Development Services Annex.
- In 1993, the 26,000-square foot Human Services Building was constructed. This building accommodates York County Parks & Recreation and the County of York-City of Poquoson Department of Social Services and Family Health Services.
- In 1995, the Environmental & Development Services Administration Building was constructed at the Operations Center. This 10,500 square foot building includes a single story office building with an attached shop.
- In 1997, the York-Poquoson Courthouse was constructed with five courtrooms and office space for all three courts and court-related agencies.

- As of the writing of this plan, a new 4200-square foot building is under construction at the Operations Center to house the Division of Parks and Recreation and the VPI Extension Service. In addition, the former Circuit Courthouse and the former District Courthouse (now referred to as the Finance Building) are scheduled for renovation work. A number of departments and agencies will be relocated during 1998 and 1999 to efficiently use the space available to the County after the new York-Poquoson Courthouse was completed in 1997. In addition, the Law Enforcement Center (formerly York County Jail) and Law Enforcement Center Annex are scheduled to be demolished to make way for more open space and parking in Historic Yorktown.

Future construction planned or proposed for the Operations Center is summarized in the table below:

SUMMARY OF FUTURE BUILDINGS SHOWN IN CONCEPTUAL MASTER PLAN FOR THE YORK COUNTY OPERATIONS CENTER			
DESCRIPTION	DEPARTMENT/AGENCY	LOCATION	SIZE (Gross Sq. Ft.)
Storage/Shop Building	Environmental & Development Services	Service Drive	8,000
Office Building	To Be Determined	Service Drive	26,000
Office Building	To Be Determined	Operations Drive	4,000
Warehouse	All Departments/Agencies	Operations Drive	30,000
Vehicle Maintenance Shop Addition	General Services	Operations Drive	4,000
Storage/Shop	General Services	Ft. Eustis Boulevard	6,000
Storage/Shop	General Services	Ft. Eustis Boulevard	13,000
Office	To Be Determined	Goodwin Neck Road	17,000

Table 10

Court Facilities

The caseloads of all three courts have grown tremendously in recent years, putting a heavy strain on the capacity of the courthouses. In addition to the increasing demand on the Circuit and District courtrooms, there were numerous deficiencies in the courthouse facilities themselves that compromised the security, safety, and efficiency of the court operations. Major deficiencies included the absence of security checkpoints and the lack of secure prisoner holding facilities, witness waiting rooms, private attorney/client conference rooms, and adequate parking. In response to these problems, the Board of Supervisors approved construction of a new 59,680 square foot York-Poquoson Courthouse, which houses all three courts and is located in Yorktown. The new courthouse, which opened in September 1997, has been designed to meet the County's court space needs at least through the year 2015.

LIBRARY SERVICE

EXISTING CONDITIONS

Library services have long been recognized as being integral to a high quality of life for York County residents. This includes the support of literacy and opportunities for life long learning. In addition, as one of York's premier public facilities, the library must help foster a sense of community and serve as a focal point for citizen interaction.

The County operates a public library located on Route 17 in Grafton. It is an 11,900 square foot facility which opened in September, 1984. Since then, York's population has grown dramatically and demands for library services exceed the capacity of this facility. Consequently, the County is in the early stages of construction of a second library which will be located in the lower County.

Many of York's upper County residents use the Williamsburg-James City County Regional Library

System. The Regional Library operates two facilities - one is located in the City of Williamsburg and the second in upper James City County. Both sites are therefore geographically convenient for certain of York County's residents. Although York is not a member of the regional system, the County makes a voluntary annual contribution to help offset user costs. In Fiscal Year 1996-97, York County's contribution constituted 3.2% the Williamsburg Regional Library System's budget although the County represents about 12% of its registrants and its circulation.

Measures of Service and Quality

The Virginia State Library Board (VSLB) has recommended guidelines for the provision of library services. These are published in Planning for Library Excellence. This document defines a series of goals to help improve the quality of service. The measures of quality include building size, circulation, and the size of the library's collection of books and periodicals. These are primarily presented on a per capita basis in order to allow libraries to tailor them to the size of the community they serve. There are three levels of quality for most of these guidelines, with Level III being the highest or "most excellent."

By the standards of the VSLB, the York County Public Library is too small for the population it serves. Based on the service area population, the County has 0.27 square feet of library space per capita, falling short of the VSLB's guideline of 0.6 square feet. The facility under construction will add 32,000 square feet and should meet future growth needs through the year 2015.

According to the VSLB guidelines, the current library's **book collection** also falls below the minimum standard of excellence for libraries, which is 2.0 volumes per capita. The library currently has about 1.5 volumes per capita. For **periodicals**, however, the current library exceeds the Level III (highest) standard of excellence, with 5.4 titles per thousand residents. In the area of circulation, the library exceeds Level II, with 7.7 items circulated per capita. Annual circulation per capita is considered one measure of the relevance of the collection to user needs.

	York County Public Library	Williamsburg Regional Library System
Square Feet	12,000	62,000
Square Feet Per Capita	.27	.98
Service Area Population	44,500 *	63,300 **
Volumes	68,000	216,000
Volumes Per Capita	1.5	3.4
Periodicals	280	377
Periodical Per 1,000 Residents	6.3	6.0
Circulation	326,000	780,000
Circulation Per Capita	7.3	12.3
Registrations	27,000	45,000
Audio/Visual Materials	3,920	15,900
* South of the Naval Weapons Station ** Williamsburg, James City County and Upper York		
Source: Head Librarians		

Table 11

VIRGINIA STATE LIBRARY BOARD GUIDELINES			
Measure Of Quality	Levels Of Excellence		
	I	II	III
Square Feet per Capita	0.6	0.6	0.6
Volumes per Capita	2.0	3.0	4.0
Periodicals per 1000 Residents	4.1	6.6	8.6
Source: Virginia State Library and Archives, <u>Planning for Library Excellence</u> (1988).			

Table 12

CHANGES SINCE 1991

Since the adoption of the Comprehensive Plan in 1991, there have been several changes to library service provided to York County citizens. The York County Public Library has expanded its collection despite serious space deficiencies. The book collection has grown by 15,000 volumes, which is an increase of 28.3%. Periodicals increased by 64.7% (110 titles), while audio/visual materials have increased by 78.2% (1,720 titles). Circulation at the library has increased 53.8%. Perhaps most significantly, however, the County acquired a site on Route 134 for a new library, and construction has been completed.

Also since 1991, the Williamsburg-James City County Regional Library system has constructed a branch library in the Norge area of James City County, providing more convenient service to York County residents in the Lightfoot area. In addition, the Williamsburg Regional Library on Scotland Street has been expanded.

PARKS AND RECREATION

EXISTING CONDITIONS

Recreational Programs

York County offers a variety of programs for both active and passive recreation. Available to young people are a wide range of programs including soccer, tennis, basketball, roller skating, summer playgrounds, sports camps and a variety of instructional classes (art, music, dance, etc.). Adult programs include softball, basketball, tennis, volleyball, aerobics, and instructional classes.

For senior adults, York County operates the Senior Center of York, which is located in the Washington Square Shopping Center and offers a wide variety of activities, classes, special events, and trips. In addition, programs and activities sponsored by the Historic Triangle Senior Center, located in the James City County-Williamsburg Community Center, are available to seniors living in the upper County.

Residents of all ages can participate in the County's open gym program and the two "Skate, Rattle, and Roll" roller skating programs. The open gym program is conducted in various elementary and middle school gymnasiums throughout the year and is geared toward casual/pick-up ball games. Skating in the upper County is held in rented space at the Historic Triangle Community Services Center; in the lower County, the program is operated in the Dare Elementary School gymnasium.

Several recreational programs are also available to County residents through private organizations or other public agencies. Private organizations sponsoring programs in both the upper and lower County include four youth baseball/softball associations, four youth football/cheerleading associations, four soccer clubs, three swim team/aquatic clubs, and two youth wrestling associations. In addition, the Williamsburg and James City County Parks and Recreation Departments make available programs and facilities to upper County residents. Many of these organizations use County facilities, and they meet a significant portion of the demand in the County for recreational activities.

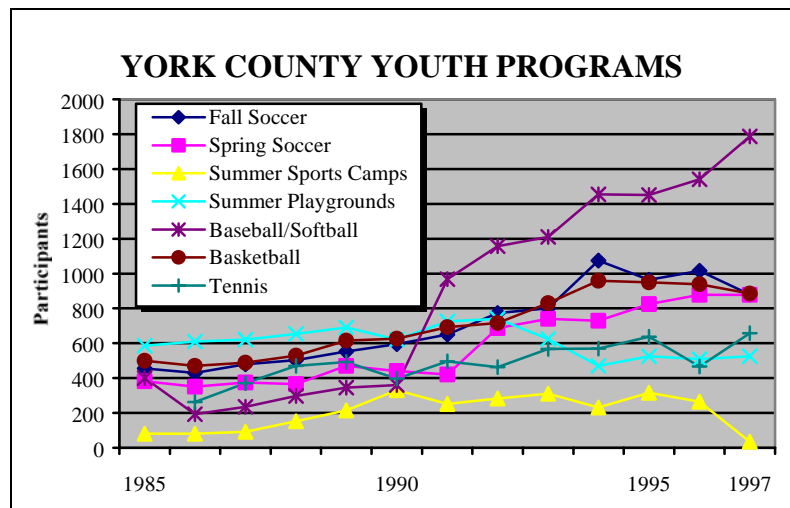


Figure 19

Participation in York County recreational programs has increased 542% since 1990. Seventy-two percent of this growth, however, is due to the addition of the Senior Center of York and associated activities (14,078 participants in 1997), instructional classes (1,025 participants in 1997), and the two roller-skating programs (17,250 participants in 1997). Nevertheless, growth in existing programs has also been significant. Excluding new programs that were introduced and others that were discontinued or transferred between 1990 and 1997, there was a 78% increase in overall program participation and a 67% increase in youth program participation during that period. Growth in adult programs was more moderate, with a 14% increase between 1990 and 1997.

Among the youth programs, baseball/softball and soccer have been two of the most popular and fastest-growing activities, growing by 117% and 70% between 1990 and 1997. Youth tennis has also grown in popularity – with a 65% increase from 1990 to 1997 – and most of the remaining youth programs experienced a moderate increase in participation. All of the demand for youth baseball and softball in the upper and lower County is met by programs sponsored by the 4 youth baseball/softball associations or the Williamsburg Parks and Recreation Department. In 1997, there were a total of 1,445 participants from York County in spring and summer baseball/softball programs in the lower and upper County. Fall baseball/softball programs in 1997 had over 550 County youth participants.

Recreational programs for adults are not as extensive as the youth programs. The softball programs – both men's and co-ed – have experienced significant growth, more than doubling from 465 in 1990 to 1,215 in 1997. Participation in the basketball and tennis programs, in contrast, has been on the wane, declining in the 1990-97 period by 80% and 58% respectively.

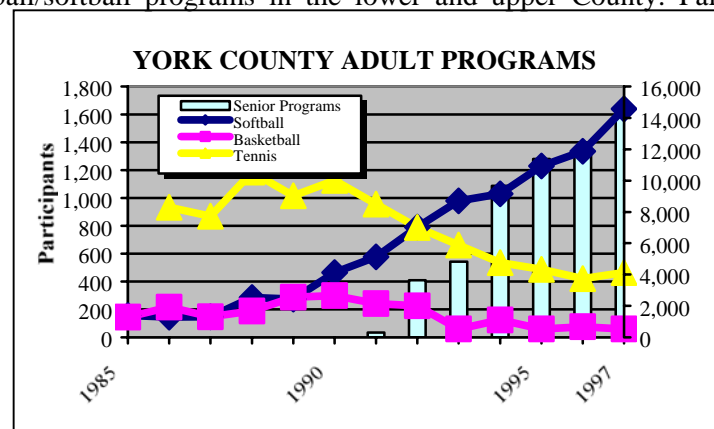


Figure 20

School/Park Facilities

York County's development of recreational facilities at school sites for community use, known as the "school/park concept," has proven to be an effective means of providing athletic fields, gymnasiums, basketball and tennis courts, and playground areas that serve both school and community needs. In fact, if the County were to provide separate facilities comparable to what is found at the 18 school sites, millions of additional dollars would have to be spent to duplicate the infrastructure that already exists at school sites (utilities, parking, etc.). Citizens have been well served by the school/park concept in York County and will continue to be so for years to come. In this regard, York County is a model for other communities wishing to provide recreational facilities in a cost-effective manner.

Development of school/park facilities began in 1985, after a joint effort by County and School staffs to develop master plans for each elementary, middle, and high school site in the County was completed. In addition to utilizing the sites to the fullest extent possible for community and school purposes, the master planning effort also tried to achieve equity among the school, by establishing a basic set of *core* facilities that should exist at each site. For example, each elementary school master plan depicts these core facilities: a gymnasium, two playground areas, a youth baseball/softball field, a soccer field, and two outdoor basketball courts. However, in addition to these core facilities, some elementary school sites may have, for example, larger soccer fields that are lighted, two baseball fields, tennis courts, and so forth if the site is able to accommodate such development and if there is a need in that geographic area for such a facility. These plans have also been revised periodically as the need to expand school buildings and/or provide additional facilities occurred. The vast majority of the County's school sites have been fully developed, and current efforts are directed towards upgrading existing facilities by installing irrigation and/or lighting systems, improving drainage on infields, or renovating turf grass.

Because of the commitment to the school/park concept, most of the County's recreational activities take place on school grounds. In order to maximize the community's use of these facilities, the Board of Supervisors and the School Board first entered into an agreement in 1991, and then updated it in 1997, whereby the Parks and Recreation Division assumed responsibility for scheduling after-school use of gymnasiums and outdoor facilities at all elementary schools and three of the four middle schools. (Elementary and middle schools are the primary school/park sites since they do not have as many after-school activities as the high schools.) An additional benefit of this centralized scheduling approach is that valuable usage data is compiled and analyzed in order to assess the existing demand and long-term needs for recreational facilities.

Athletic field usage and program participation data collected since 1991 has provided some useful information. Although there has been a 75% increase in the number of hours athletic fields are reserved since 1991, the increase since 1995 has only been 5%. This difference is attributed to the fact that since the mid-1990s, athletic fields in the County have been operated almost at maximum capacity during the prime seasons for sports activities (fall and spring). This data, coupled with program participation increases of over 500% since 1991 and 45% since 1995, gives some indication of the demand for athletic field usage.

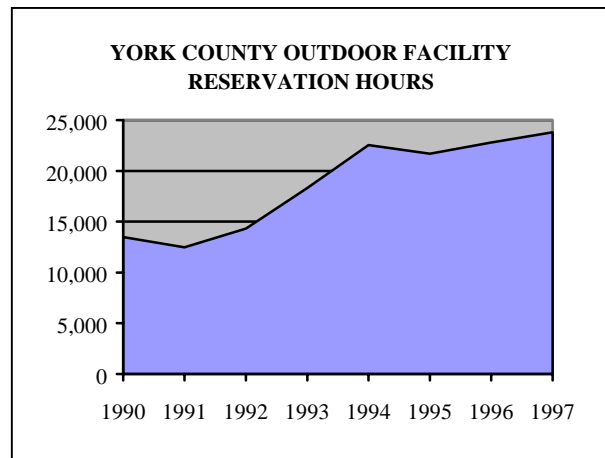


Figure 21

Moreover, although 74% of the County's soccer participants live in the Grafton/Tabb area, only 33% of the soccer fields in the lower County are located in Grafton/Tabb. In contrast, residents in the York/Seaford/Dare areas comprise 26% of the soccer participation but have 66% of the soccer fields in the lower County located in their geographic area.

A final aspect relating to facility use issues to consider is the effect that inadequate high school facilities has had on other school and park facilities that are supposed to be available for community use. For example, the Tabb and Grafton High School soccer and field hockey teams have had to use Mount Vernon Elementary School and Wolf Trap Park for their practices and games because of problems with athletic fields at these high schools. The intensity of high school interscholastic sports has had a detrimental effect on these fields to the point that they need to be renovated. However, with the heavy demand for field usage, it would be extremely difficult to take these fields out of service without having an adverse effect on community-based programs.

Park and Recreational Facilities

Complementing the school/park facilities are a variety of other park and recreational facilities. County facilities include Back Creek Park, Charles E. Brown Park, Chisman Creek Park, Kiln Creek Park, New Quarter Park, Wolf Trap Park, the Yorktown Waterfront, and the Old Wormley Creek and Rodgers A. Smith public boat landings. Also located in the County are several non-County parks, including the Colonial National Historical Park, which is owned and operated by the National Park Service, Waller Mill Park (City of Williamsburg), and Harwoods Mill Park (City of Newport News). In addition, the County rents space at the Washington Square Shopping Center in Grafton, which serves as the program site for the Senior Center of York, and space in the Historic Triangle Community Services Center on Waller Mill Road for the "Skate, Rattle and Roll" roller skating program. Finally, many subdivision and apartment complexes in the County have private recreational facilities – such as swimming pools, playing fields, tennis courts, weight rooms – available for their residents' use.

Back Creek Park is located on Goodwin Neck Road in the Seaford area. Amoco Oil Company donated this 27 acres of waterfront property on Back Creek to the County in 1978, and the park was opened for use in 1981. Facilities include six lighted tennis courts (the only lighted tennis courts in the County), a boat launching facility, a fishing/crabbing pier, a small picnic area and a rest room building with a small

office for seasonal staff who oversee park activities. Back Creek Park serves as the hub for the County's tennis programs, which include leagues, lessons, camps and tournaments for youths and adults. The boat launching facility is considered to be one of the finest on the Peninsula and as a result is heavily used.

A 10-acre site on Route 238 in Lackey, Charles E. Brown Park was opened in 1978 as the County's first park. Park facilities available for public use include: a 3,000 square foot Community Services Center Building, two tennis courts, two lighted basketball courts, a baseball field, a playground area, a picnic shelter (donated by the York County Business Association), and a rest room building. Constructed with a combination of federal and local funds, the Community Services Center Building has two small meeting rooms, and one large meeting room with a kitchenette that is available for use free of charge. The only lighted outdoor basketball court in the County is located at this facility.

Two reclaimed fly ash sites are leased from Virginia Power by the County for recreational use. Chisman Creek Park is a 13-acre parcel on Wolf Trap Road in Grafton that opened in the Spring of 1991. This park has two lighted softball fields and a rest room building and is used as the primary site for the adult softball league program. However, because of the increasing demand for lighted athletic fields, both of the softball fields are being used for soccer play in the fall. The second reclaimed fly ash site, Wolf Trap Park, is also located on Wolf Trap Road. Opened in 1992, this 28-acre site features four soccer fields, a rest room building, and two small ponds.

Kiln Creek Park is the most recent addition to the County's inventory of park facilities. This 20-acre site on Kiln Creek Parkway in Tabb was dedicated to the County by the developer of the Villages of Kiln Creek for a future school/park site. The County has leased this property from the School Board for use as a park until there is a need to construct a school on the site. The site was master-planned as a school/park facility, so the addition of a school building on the property will have minimal disruption to the existing recreational facilities. An adjacent one-acre parcel is also set aside for construction of a future fire station should the need arise. A lighted soccer field, lighted baseball field, youth baseball/softball field, two basketball courts, a playground area and rest room facility will be developed in phases on this site, with all construction scheduled to be completed by the year 2000. The athletic fields were developed during the first construction phase in 1997 and opened for use in the spring of 1998.

Located in the upper County, adjacent to the Queens Lake subdivision and the Colonial Parkway, is New Quarter Park. This 545-acre tract, which was acquired from the federal government by the County free of charge through a surplus land program in 1976, is the largest single parcel of park acreage in the County. Most of the land is heavily wooded, with only eight acres developed for use as a group activity area and approximately 95 acres of large open grassy areas. Park facilities include a picnic pavilion that seats up to 120 people and is lighted for evening use with an adjacent barbecue pavilion, a campfire circle with seating for 100 people, a softball field, a hard-surfaced volleyball court, horseshoe courts, a floating pier on Queen Creek and hiking trails.

When it opened for use in 1986, New Quarter Park was available only for group activities on a reservation basis, hosting activities such as family reunions, church/company picnics, weddings, civil war reenactments, scout jamborees, and primitive camping. Group usage averaged 9,440 people per year, with 65% to 75% of the groups reserving the park being from York and James City Counties and the City of Williamsburg. Most group sizes ranged between 75 and 125 people but there have been single groups as large as 3,000 people. Casual use of the park by walkers, joggers and bicyclists also occurs daily throughout the year, weather permitting. Beginning in 2000, New Quarter Park has been opened to the general public for seasonal use (May through November) on a trial basis.

The Yorktown Waterfront occupies a total of two acres along the York River in historic Yorktown and provides opportunities for swimming, sunbathing, fishing, and boating. This property is owned by the Yorktown Board of Trustees but through an agreement with the Board of Supervisors is managed and maintained by the County. Developed in 1977 with a grant from the Land and Water Conservation Fund, the Yorktown Waterfront is the only public beach facility in York County. In addition to the beach area, the Yorktown Wharf and the Yorktown Pier facilities are also located along the Waterfront. Recently closed to the public because of safety concerns, the Yorktown Wharf had accommodated public fishing and various types of docking activities. The Yorktown Pier, which is located at the intersection of Comte de Grasse and Water Streets, is open to the public for fishing and is currently leased by a commercial

cruise line company for short-term docking privileges. Future improvements, renovations and/or use of these Waterfront facilities are subject to the concepts presented in the Yorktown Master Plan.

The Senior Center of York is located in 3,000 square feet of rented storefront space in the Washington Square Shopping Center in Grafton. The Center was located in a 1,000-square foot unit in the Patriot Square Shopping Center in 1991 but was moved to the larger facility in 1993 because the number of citizens participating in senior adult programs had outgrown the capacity of the facility. In addition to its regular activities, the Center serves as a nutrition site for the Peninsula Agency on Aging. This facility is open during the day, Monday through Friday.

The County also leases approximately 7,000 square feet in the Historic Triangle Community Services Center on Waller Mill Road for the operation of a roller skating program called “Skate, Rattle and Roll”. This program began in October of 1994 and is generally operated year-round on Friday evenings and Saturday afternoons and evenings.

In recent years, many citizens have advocated the development of a community center. Land has been acquired on Route 134 adjacent to the Tabb library facility for future construction of a community center that would serve residents in the lower County. Plans to provide similar opportunities for upper County residents would most likely involve some type of cooperative arrangement with existing community/recreation centers operated by James City County or the City of Williamsburg.

Finally, York County has seven public boat ramps, all of them located in the lower County. Proximity to the York River and the Chesapeake Bay makes boating an extremely popular activity in York County. Proximity, however, does not guarantee access. Much of the County’s shoreline is in federal ownership (Camp Peary, Naval Weapons Station, and the Coast Guard Training Center). This contributes to the shortage of boat landings in the County, as evidenced by current overcrowding at the Rodgers A. Smith and Back Creek Park facilities. The County intends to improve the existing public access sites and acquire new land for recreational use. The Rodgers A. Smith boat ramp is slated for improvement with the construction of an improved floating dock in 2004. The County is also adding public rest room facilities at this location in conjunction with the extension of sanitary sewer. The sanitary sewer pump station is being designed to allow for future pump-out facilities at the boat ramp. In addition, through a grant from the Virginia Department of Game and Inland Fisheries, a crabbing and fishing pier was built at Back Creek Park, and the County replaced the floating wooden dock with a concrete floating dock.

According to the recreational needs assessment conducted for York County by the Virginia Department of Conservation and Recreation, the demand for water acreage from water-based recreational activities is expected to increase by 13% between the year 2000 and 2010. The 1990 Chesapeake Bay Public Access Plan offers suggestions for accommodating this increased demand, including the following:

- Additional boating access for areas west of the Coleman Bridge and east of York River State Park,
- Additional boating sites on the Poquoson River in order to relieve the heavy boat traffic near the mouth of the York River,
- Increased accessibility to the large tidal marshes along the creeks of the County for nature study and environmental education, and
- Analysis of the lands along the Colonial Parkway to identify potential sites where water access could be improved by providing additional parking areas.

In addition to these areas, land along Queen Creek was identified as a potential access area. Chisman Creek would also be a good site for a public boat launching facility because there is deeper water suitable for launching larger boats. The parking lot at Back Creek Park could also be considered for expansion. For canoeists and kayakers, the Wormley Creek Boat Landing has potential for improved access. In addition, increased accessibility to the large tidal marshes along the creeks of the County would allow for nature study and environmental education. Existing and potential water access sites in the County, both public and private, are depicted on the Public and Private Access to Water map, with detailed information on each provided in the three tables below.

Existing Public Shoreline And Water Access Points - York County

Map No.	Public Access Area	Day Use	Seasonal Use	Fee or Permit	Shoulder Parking	Limited Parking Lot	Large Parking Lot	Boat Launch Ramp	Car Top Boat Only	Dock	Bank and Pier Fishing	Swimming Beach	Hiking Trails	Camping	Nature Study / Education	Picnicking	Restrooms	Handicapped Access	Shoreline Erosion	Wetlands	Natural Heritage Areas	Cultural Resources	Pumpout
1	Back Creek Park	x					x	x		x	x				x	x	x			x			
2	Cheatham Wilderness										x		x		x	x					x		
3	Colonial National Historic Park	x				x		x			x			x	x	x	x	x		x		x	
4	New Quarter Park	x	x	x			x		x		x		x		x	x	x	x		x	x	x	
5	Old Wormley Creek Landing	x					x	x		x	x							x					
6	Rodgers A. Smith Landing	x				x		x		x	x				x		x			x			
7	Yorktown Waterfront	x					x		x	x	x	x	x		x	x	x	x				x	

Public Access Area	Water Body	Remarks
Back Creek Park	Back Creek	Tennis, crabbing, fishing, picnicking
Cheatham Wilderness	Queen Creek	Limited access, open by permit only, eagle/osprey nesting
Colonial National Historic Park	York River	Historic site, bike path, interpretive center, camping by permit
New Quarter Park	Queen Creek	Limited access – open to public seasonally
Old Wormley Creek Landing	Wormley Creek	Launch at high tide only, dock
Rodgers A. Smith Landing	Poquoson River	VDGIF site, 3 ramps, pier for fishing and crabbing
Yorktown Waterfront	York River	Historic site, food, swimming, fishing, picnicking
Sources:		
<ul style="list-style-type: none"> Chesapeake Bay and Its Tidal Tributaries & Susquehanna River Public Access Guide, 1989; revised map 1995 Chesapeake Bay Public Access Plan. Chesapeake Bay Program Agreement Commitment Report, December 1990 		

Existing Commercial/Private Marinas, Boat Ramps & Recreation Areas - York County

Map No.	Public Access Area	Water Body	Boat Launch Ramp	Number of Wet Slips	Dockside Pumpout Station	Restrooms	Remarks
1	Aqua Marine	Chisman Creek	x	25		x	Repairs, convenience store, shower.
2	Belvin Marine	The Thorofare	x	8		x	Boat lift, electric, engine sales, repairs, beverages.
3	Camp Skimino	Skimino Creek					Girl Scout reservation.
4	Dare Marina	Chisman Creek		50	x	x	300' floating docks, 128 dry storage, marine store, gas, ice.
5	Marlbank Cove	Wormley Creek		12			Private
6	Mills Marina	Back Creek		58	x	x	Marine store, gas, electric, bait.
7	Queens Lake Boat Dock	Queen Creek	x	88	x		Private
8	Seaford Yacht Club	Back Creek		30			Private

Existing Commercial/Private Marinas, Boat Ramps & Recreation Areas - York County

Map No.	Public Access Area	Water Body	Boat Launch Ramp	Number of Wet Slips	Dockside Pumpout Station	Restrooms	Remarks
9	Smith's Marine Railway	Chisman Creek	x	6			Repairs only.
10	Thomas Marina	Chisman Creek		35		x	Dock, electric
11	Williamsburg KOA	Skimino Creek					Campground off Lightfoot Road (Rt 646).
12	Wormley Creek Marina	Wormley Creek		72	x	x	40 dry storage, repairs, showers, gas, diesel, electric, beverages

Sources: Chesapeake Bay Public Access Plan. Chesapeake Bay Program Agreement Commitment Report, December 1990, and Boating Almanac. Volume 4, 1993.

Potential Public Shoreline and Water Access Points - York County

Map No.	Public Access Area	Day Use	Seasonal Use	Fee or Permit	Shoulder Parking	Limited Parking Lot	Large Parking Lot	Boat Launch Ramp	Car Top Boat Only	Dock	Bank and Pier Fishing	Swimming Beach	Hiking Trails	Camping	Nature Study / Education	Picnicking	Restrooms	Handicapped Access	Shoreline Erosion	Wetlands	Natural Heritage Areas	Cultural Resources	Pumpout
1	Back Creek Site							x			x					x				x			
2	Back Creek Park																			x			x
3	Cheatham Wilderness							x				x		x									
4	Poquoson River Site							x			x				x	x				x			
5	York River Potential Site								x		x	x			x	x				x		x	
6	Yorktown Waterfront							x			x												

Public Access Area	Water Body	Remarks
Back Creek Site	Back Creek	Potential for pier or dock
Back Creek Park	Back Creek	
Cheatham Wilderness	Queen Creek	Limited Access, Eagle / Osprey Nesting
Poquoson River Site	Poquoson River	
York River Potential Site	York River	Potential for pier or dock
Yorktown Waterfront	York River	

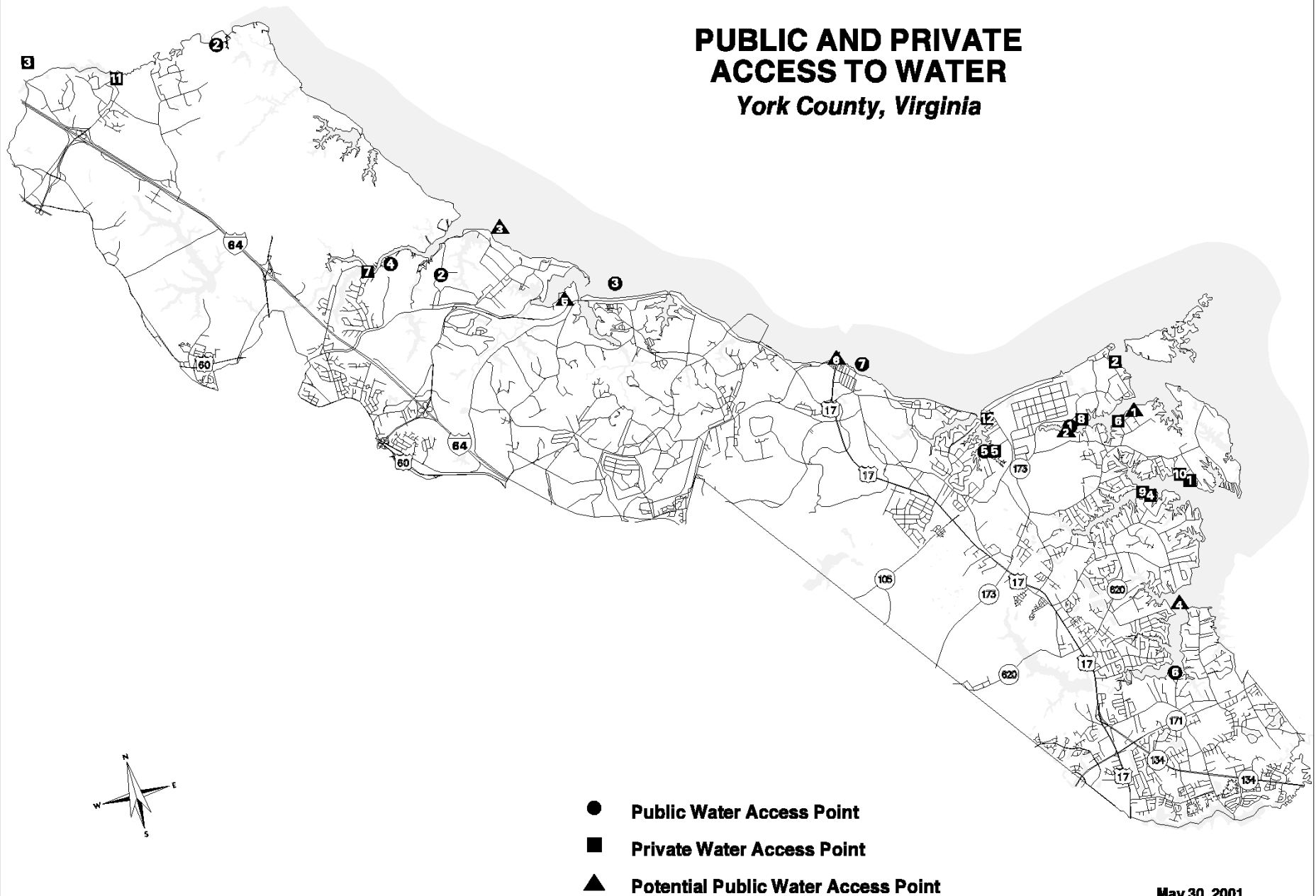
Source: Chesapeake Bay Public Access Plan. Chesapeake Bay Program Agreement Commitment Report, December 1990.

CHANGES SINCE 1991

Recreational Programs

PUBLIC AND PRIVATE ACCESS TO WATER

York County, Virginia



May 30, 2001
Prepared by York County
Computer Support Services

As the County's population has grown and changed demographically, similar changes have also taken place with recreational programs in the County. In general, changes in recreational program offerings that have occurred since the adoption of the Comprehensive Plan in 1991 have reached a broader segment of the population – from the preschooler to the senior adult – and have supplemented rather than duplicated private sector and community-based programming efforts to the point where there is an adequate assortment of recreational opportunities for citizens of all ages.

Major changes in recreational programming include the following:

- opening and operating of the Senior Center of York in the lower County.
- collaborating regional programming efforts for seniors in the upper County with the Historic Triangle Senior Center.
- entering into a contract with the York County Little League to take over all of the County-sponsored youth baseball and softball league programs.
- transferring the operation of the Williamsburg area soccer program to the James City County Parks and Recreation Division.
- starting two new public roller skating programs and an instructional class program.

Less comprehensive programming changes that have been responsive to the needs expressed by citizens have been:

- initiation of an open gym program.
- extension of the hours of operation for the Summer Fun Playground and Special Recreation Camp programs.
- expansion of the variety of summer sports camps.
- offering field trips in the summer for teens.
- sponsorship of an adult volleyball league and a fall adult softball league.

School/Park Facilities

Many changes have occurred on school sites as a result of school construction, renovation, and expansion projects. In fact, because of the number of changes that needed to be made in order to accommodate the growing student population, all of the school/park master plans were updated in 1993 by a team of School Division and County staff. All of the changes relating to school/park facilities have had either a direct or indirect effect on the services provided by the Parks and Recreation Division.

School/park facility changes since 1991 are summarized as follows:

- Gymnasiums/physical education spaces were added to Tabb, Dare, Yorktown and Bethel Manor Elementary Schools, leaving Seaford and Waller Mill Elementary Schools as the only schools in the County needing gymnasium facilities.
- Lights were added to the regulation-size soccer fields at Coventry and Magruder Elementary Schools; the football/soccer field at Bruton High School was also renovated and lighted.
- A youth baseball/softball field was constructed at Tabb and Dare Elementary Schools, and on property leased from Bethel Baptist Church adjacent to Tabb High School.
- A new field hockey/soccer field and six new tennis courts were constructed at York High School and were located on the site according to the school/park master plan.
- Construction of the Grafton High/Middle School complex was completed and included gymnasium space and athletic fields.
- A soccer field was constructed at Tabb and Dare Elementary Schools.
- The athletic fields and outdoor basketball courts at Grafton Bethel Elementary School were renovated and relocated according to the school/park master plan.

In addition to the facilities that have been developed, the Board of Supervisors and School Board approved a joint agreement in 1991 which assigned the responsibility for scheduling after school use of outdoor athletic facilities at elementary and middle schools to the Division of Parks and Recreation. Because of the successful implementation of the 1991 agreement, the responsibility for scheduling

gymnasium facilities was also given to Parks and Recreation, which necessitated updating the existing agreement. The revised agreement was approved in 1997.

OUTDOOR RECREATIONAL FACILITIES INVENTORY (Includes existing facilities and facilities currently under construction)								
Type of Facility	Upper County		York/Dare Area		Grafton/Tabb Area		Total County	
	1991	1998	1991	1998	1991	1998	1991	1998
Instructional Soccer	1	1	1	4	1	1	3	6
Soccer/Football	4	4	3	8	5	7	18	19
Youth Baseball/Softball	4	5	7	8	2	6	13	19
Combination Field*	0	0	0	0	1	1	1	1
Regulation Softball	0	0	1	2	0	0	1	1
Regulation Baseball	2	2	4	5	2	2	8	9
Track	1	1	1	1	1	3	3	5
Tennis Courts	6	6	16	22	4	6	26	34
Outdoor Basketball Courts	6	6	16	18	9	11	31	35
Boat Ramps	0	0	5	5	2	2	7	7
Picnic Areas	1	1	1	2	0	0	2	3
The York/Dare area includes facilities north of Dare Road up to Charles Brown Park in Lackey								
*Lighted soccer/football field at Tabb Middle School								

Table 13

Park and Recreational Facilities

Changes relating to park and recreational facilities since 1991 are highlighted as follows:

- Chisman Creek Park opened in 1992. Chisman Creek Park's softball fields were irrigated in 1995.
- Charles E. Brown Park was renovated and some new facilities were constructed. A regulation-size baseball field replaced the softball field; a 3,000-square foot Community Services Center was constructed; a picnic shelter was donated and built by the York County Business Association; and new playground equipment was installed and the parking lot was expanded.
- The seventeen-year-old floating wooden docks at Back Creek Park's boat launching facility were replaced with floating concrete docks. A grant was also received from the Virginia Department of Game and Inland Fisheries to construct a fishing/crabbing pier at the boat launching facility.
- Use of lifeguards to supervise the beach at the Yorktown Waterfront was discontinued and replaced with a beach patrol program that uses law enforcement personnel from the Sheriff's Office.
- The Senior Center of York moved from a 1,000-square foot storefront facility at Patriot Square Shopping Center to a 3,000-square foot rented storefront space at Washington Square Shopping Center.
- In order to provide a new roller skating program in the upper County, 7,000 square feet of space was leased on a multi-year basis from the Historic Triangle Community Services Center for use as the program site.
- The Kiln Creek school/park site was leased by the County from the School Board for use as a park until a school building is constructed on the site. A regulation-size soccer field, regulation-size baseball field, a youth baseball/softball field and a 75-car parking lot were built on this site in 1997 as the first phase of construction.

SCHOOLS

EXISTING CONDITIONS

System Overview

The York County School Division consists of eighteen schools: ten elementary schools, four middle schools, and four high schools. In addition, the School Board owns a site for future school development within the Villages of Kiln Creek planned development.

York County currently operates one magnet program, the School of the Arts, which is located at Bruton High School and offers classes in both literary and theater arts. The County also offers the EXTEND Program at York High School, which serves academically gifted students, providing differentiated instruction that individualizes the learning experience beyond that in the regular classroom. In addition, a variety of advanced placement courses are offered in all the high schools. Adult learning opportunities in both basic and continuing education, including GED preparatory classes, are also provided.

Population and School Membership History

The term *school membership* is used to describe the number of students registered to attend the public school system at a given point in time. It consists of the number of entries and re-entries, less the number of total withdrawals. The cumulative number of students enrolled in the system during the school year exceeds the membership figure.

School membership was fairly constant prior to World War II (see **Figure 22**), but the postwar baby boom brought a dramatic increase in the number of school-age children, thus putting tremendous pressure on school systems all over the country in the 1950s and '60s. York County was no exception. Between 1950 and 1960, when the total population of the County climbed by 47%, school membership jumped by **86%**. As a result, the ratio of school students to the total population rose from 15% in 1950 to 19% in 1960. This growth in school membership, dramatic though it was, pales in comparison to the 1960s, which brought a 60% increase in population and a **135%**

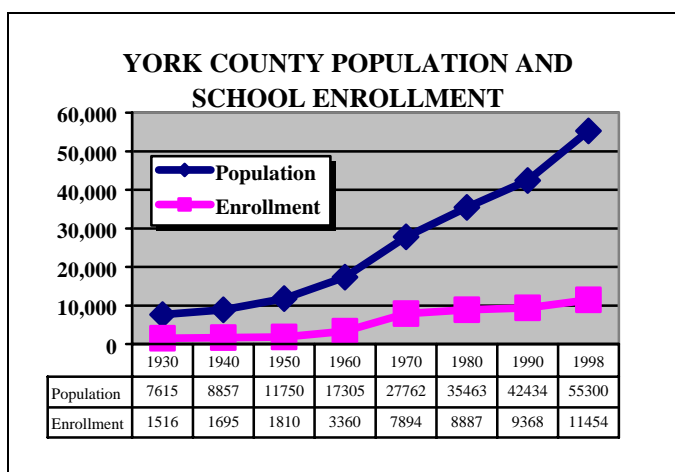


Figure 22

increase in school membership; by 1970, the student/population ratio had climbed to nearly 30%. The response to this enormous growth in the student population was a major expansion in school facilities: ten of the County's eighteen existing schools were built between 1954 and 1969.

The 1970s and '80s brought relative stability to school membership, with growth rates of 12% and 6% respectively. In contrast, the County's population growth rate was 28% during the '70s and 20% during the '80s. As a result, the student/population ratio fell to 25% in 1980 and to 22% in 1990. In fact, student membership actually *declined* between 1980 and 1986 despite continued housing construction. It then increased fairly steadily through the end of the decade as the so-called "baby boom echo" (the offspring of the baby boom generation) began to reach school age. Elementary school membership began to climb in 1985 while intermediate (or middle) and high school membership remained fairly steady.

As the 1990s began, population growth in York County was continuing to slow from its peak in 1986 based on the number of certificates of occupancy issued by the County for new residences. During the second half of 1991, however, the County began to experience a housing boom. Between July 1, 1991, and June 30, 1992, a total of 786 new housing units were built in the County—85% more than were built in the previous twelve-month period. Most of this development activity took place in the southern part of the County, where 87% of these new homes were built, with the Coventry and Kiln Creek planned developments leading the way. Manpower increases at Langley Air Force Base caused by the consolidation of the Strategic and Tactical Air Commands into the Air Combat Command, coupled with the lowest interest rates in more than a decade, are presumed to be largely responsible for the increase in new home demand. This population growth brought a sudden sharp increase in school membership in 1991 and an even sharper increase in 1992. School membership jumped dramatically from 9,368 to 10,351, an increase of 11% in just those two years. Between 1992 and 1998 both population and school membership has continued to grow, although at slower pace than the first two years of the decade. During the 1990s total population has increased by 30% and school membership by 22%. Almost all the

growth in school membership from 1980 to 1997 took place in the lower County as did the population growth.

Measuring School Capacity

In order to measure school crowding, a comparison must be made between school membership and the housing capacities of the schools. School capacities can be determined by using the original architectural design capacity or by using the program capacity. The architectural design capacity is based on state standards as to how many students can be accommodated within a particular physical space. On the other hand, program capacity is determined not only by available physical space, but also by the constraints placed on physical space by programs. State education mandates, school board policies, changes in educational philosophy, and desires and expectations of the community can all effect changes in program capacities over time.

In the early 1990s the School Board contracted with Dr. Glen Earthman, a recognized expert on school capacity calculation, to develop a study of the *program* capacity of each of the York County schools. The extent of overcrowding had previously been calculated based on design capacity of each building; and while design capacity figures in the early '90s indicated ample space for the student enrollment, the experience of the school division was that, in reality, overcrowding existed. After visiting all of the York County Schools, Dr. Earthman developed capacity estimates in the fall of 1992 for each school based not only on the size of each instructional space but also on the program for which it was being used. Several sets of figures were prepared under differing parameters with regard to such variables as the student/classroom ratio and the range of classes offered at each school level. After deliberation, the School Board adopted program capacity calculations that provided for full day kindergarten and for student/classroom ratios of 22:1 in the elementary schools, 23:1 in the middle schools, and 25:1 in the high schools. This resulted in a total school *program* capacity of 8,941, almost 25% below the *design* capacity (11,530) of the then existing buildings. The combination of significant unexpected growth in school membership and the change from design to program capacity of school buildings ultimately led to a substantial school construction program. The results of the construction program can be seen in **Table 14**. As of the fall of 1997, additional capacity at the middle school level is needed to eliminate minor overcrowding; but overall system capacity of 12,703 exceeds the membership of 11,171 by 13%.

In order to measure potential future overcrowding, it is necessary to compare program capacity figures with present and projected future school membership levels and to take into consideration programs which are not being offered, such as full-day kindergarten and program changes which might occur in the future. Of course, projecting future population growth is not an exact science; and projecting future school membership is especially difficult, for there are a variety of demographic variables that play a role, many of which are intangible and thus highly unpredictable. In addition, future program changes are very difficult to envision. Often there is little upon which to base future projections other than past trends, and the validity of this approach is limited since we know that patterns change. School membership projection is particularly problematic in localities like York County, which have sizable military populations. Military transfers are unforeseeable events that can produce great fluctuations in school membership. Consequently, accurate forecasts – particularly long-range forecasts – depend as much on good luck as on perceptive judgment.

School Membership Projection Methodology

The foundation of all projections is the methodology by which they were developed and the assumptions upon which they are based. The methodology for deriving these school membership projections is essentially a two-step process. Step 1 involves the development of a base enrollment figure projected for each grade level using the standard *Grade Progression Method* of enrollment projection. Under this method, the number of students in each grade is assumed to equal the number of students in the previous grade during the previous year. The number of kindergartners has to be estimated since there is no previous grade from which to advance. The obvious weakness of this method is that it does not account for net migration, for students who fail or drop out of school, or for the many first-graders who do not attend public kindergarten. The Grade Progression Method merely establishes the base membership projection.

The second step of this process involves the adjustment of the base figures for each grade level by a change factor. This change factor reflects projected population growth in the County, as well as various assumptions discussed in detail below. In addition, the change factor reflects historical patterns of increase or decline at each grade level that have occurred in York County within the past ten years. Certain patterns in the grade structure occur regularly, such as large increases in the seventh and ninth grades and steady, sometimes sizable declines in grades ten, eleven, and twelve. These historical patterns give a good indication of how the projected growth in school membership will be distributed among grade levels. Special education student membership must be projected separately since these students are not included within the individual grade levels on the School Board's monthly membership report.

A number of assumptions about the future of York County were factored into the school membership projection equation. These relate to expected future trends in military spending by the Federal government, economic growth in the region and the County, and the direction that household sizes will follow.

The size of the military population in the County is one of the most important factors to consider in projecting school membership; unfortunately, it is also one of the most difficult variables to predict. Between 1980 and 1990 the total number of military personnel in the labor force in York County (excluding trainees at the U. S. Coast Guard Reserve Training Center) increased from 2,500 in to 2,751, and this resulted in a corresponding increase in the number of Federal-impact aid students in the school system, which rose from 4,509 in 1981 to 5,067 in 1991. There are reasons to doubt that such growth will continue. The Federal budget deficit and recent changes in the former Soviet Union and Eastern Europe that have lessened cold war tensions indicate the likelihood of overall military cutbacks in the 1990s, but this does not *necessarily* translate into cutbacks in York County or Hampton Roads. Some areas of the nation will no doubt lose military personnel as a result of the military restructuring, but other areas may gain, just as the Air Force consolidation in the early 1990s increased manpower levels at Langley Air Force Base in Hampton Roads at the expense of Omaha, Nebraska, site of Offutt Air Force Base. Given the overall climate surrounding military spending, it would not be realistic to assume continued growth, nor would it be prudent to assume dramatic decline. Therefore, it is assumed that there will be short-term military growth in the County but that such growth will end during the latter half of the 1990s.

Military growth contributes to population growth both directly and indirectly. Of course, increases in manpower levels at area bases bring new families; this is the direct impact. In addition, military growth contributes to general economic growth in the region, and job growth is a key determinant of population growth. York County, like the rest of Hampton Roads, benefited tremendously from the military build-up that took place during the 1980s. However, for the reasons stated above, the 1990s will most likely bring leaner defense budgets, which will have a dampening effect on economic growth, as demonstrated by the series of layoffs made at Newport News Shipbuilding in the early '90s. To a great extent, the strength of the regional economy in the future will likely depend on the region's ability to diversify its economic base.

Factors that may help to offset defense-related cutbacks include the low cost of doing business in Hampton Roads, the Navy's dominant role in the area and its relatively small percentage reduction compared to the other services, and the upgrading of current naval systems, which implies that more ship repairs and enhancements will be implemented in local shipyards. It should also be noted that York County has certain locational advantages over some other localities in the region such as a greater supply of vacant land and excellent access to transportation networks, which may allow it to attract a growing share of regional economic development.

Overall, it is assumed that, in the long run, regional economic growth will be sufficient to sustain population growth. Although declines in job growth are expected during the '90s, employment is expected to accelerate somewhat around the turn of the century as the regional economy diversifies and as York County's economic development efforts bear fruit.

With regard to demographics, it is assumed that fertility rates in York County will continue to mirror statewide fertility rates, which are expected to decrease in the long run. Nevertheless, some short-term increases in the *birth* rate are anticipated since a large share of the baby boom generation remained in the childbearing ages through 1995.

To a certain extent, York County, because of its substantial military population, is shielded from national demographic trends, for the County's demographics are skewed somewhat by the presence of military families. Although household sizes in Census Tract 506, which consists solely of the Naval Weapons Station, Camp Peary, and Cheatham Annex, followed the national trend of decline during the 1980s, the average household size in Bethel Manor (Langley Air Force Base housing) rose slightly. In fact, the ratio of Federal-impact aid students to military personnel in the County increased slightly during the 1980s – from 1.80 to 1.82 – indicating that the decline in household sizes in the County has been mitigated to a certain extent by growth in military family size. The average household size in the County *did* decline between 1980 and 1990 (from 3.15 to 2.90 persons per household) but would have declined more if not for military growth. This factor is assumed to continue only in the short term.

Household sizes are assumed to decline through the year 2000 and beyond. For purpose of comparison, the average household size in the County fell at an average rate of 0.8% per year during the 1980s. It should be noted that even during the peak years of the baby boom – from 1950 through 1960 – household sizes in the United States declined, albeit slightly, from 3.37 to 3.33 persons per household. Household sizes are assumed to start to fall for two reasons. The baby boom generation began to pass out of the childbearing ages in 1991 and will ultimately be replaced by the smaller baby bust generation. The natural decline in the number of potential mothers dampens the birth rate and therefore reduces average household sizes. Of course, there will be women between ages 15 and 44 moving into York County, but there will not likely be enough to increase the size of this age group at rates comparable to the 1970s or '80s. It should be remembered that these trends are taking place nationwide as well, and this is reflected in the sharp decline in the migration rate of childbearing-age women into York County in the 1980s in comparison to the 1970s.

In addition, little or no growth in the military population is assumed to occur after the turn of the century, thereby removing the upward pressure on household sizes and subjecting the County to national demographic trends.

School Membership Projections

Projected school membership and school capacity is shown in Table 11. York County is expected to experience continued growth in school membership throughout the 1990s. Increases in elementary school membership will be fueled by the baby boom echo, which began impacting secondary school membership in 1993. Of course, the impact of these increases in school membership will be felt mostly in the schools in the lower County where most of the population growth is projected to take place. Based on development plans submitted to the County and the availability of vacant, developable land, this area of the County is expected to attract most of the population growth through 2015, although some growth is also anticipated in the upper County.

The turn of the century is expected to bring slower population growth in York County. By the year 2000, most of the baby boom will have advanced beyond the childbearing ages, only to be replaced by the baby bust. Just as the baby boom had its echo, the baby bust will have an echo of its own, and the birth rate will fall as the number of people in the childbearing ages falls. Residential development activity is expected to continue – bringing new families into the County – but is not expected to match the housing growth of the 1990s. This reflects such factors as the decreasing supply of residential land, new residential land-use designations which will allow less housing density, new environmental constraints on development, and the County's priority for extending public utilities to developed rather than undeveloped residential areas.

Slower population growth will translate into slower growth in school membership. As the baby boom echo grows up and exits the school system, it will be replaced by the baby bust echo, which will bring relative stability to school membership as the baby bust during the 1970s brought relative stability after the high-growth '60s. Elementary school membership is expected to begin to decline sometime during the 2000-2005 period, while secondary school membership most likely will start to fall during the latter part of the decade. At around the year 2005, however, the baby boom echo will begin to reach the childbearing ages, bringing an increase in births that will cause elementary school membership to rise

once again around the year 2009. Of course, the full impact of this increase in the birth rate will be felt beyond 2010 when elementary school enrollment should begin to rise again.

Projected Membership and Capacity Comparisons

Since school membership can be so volatile and thus difficult to forecast beyond the short term, and future program changes are unknown, it would be neither realistic nor prudent to make school construction recommendations or decisions on the basis of long-range membership projections. For example, the Forecast 2015 Committee projections adopted in January 1996 appear to overstate school membership based on actual 1997 and 1998 enrollment. Six years, which correspond with the County's Capital Improvement Program, is an appropriate horizon for school facility planning.

The school system capacities as well as actual and projected membership from Forecast 2015 are shown in **Table 14**. The upper County is to be considered that portion of the County to the north of Route 238, while that portion to the south of that roadway is considered the lower County. This hypothetical division of the County into two areas is only for the purpose of forecasting general trends and is not meant to suggest that there can be no mixing of students between the two geographic areas.

School enrollment is projected to peak at approximately 14,100 students in the 2009-10 school year. The increase in births through 1995 will be reflected in a steadily growing elementary school enrollment through the year 2005, and elementary enrollment will begin to rise again after 2010—five years after births are projected to rebound. Steady growth in the elementary schools will fuel increases in the middle school population, where enrollment is projected to continue to grow through 2005Xwith accelerated growth in the 2000-05 periodXand decline thereafter. Middle school enrollment is projected to peak at 3,460 in the 2004-05 school year. This represents an increase of one-third over 1995-96 enrollment. Similarly, high school enrollment will continue to grow through 2010, fueled by steady growth at the middle school level. High school enrollment is projected to reach almost 4,900 in 2010 before turning downward.

ACTUAL AND PROJECTED YORK COUNTY SCHOOL ENROLLMENT AND CAPACITY												
	1992 Program Capacity	1994 (Actual)		1998 Program Capacity	1999 (Projected)		2004 (Projected)		2009 (Projected)		2014 (Projected)	
		Students	Surplus or Deficit		Students	Surplus or Deficit	Students	Surplus or Deficit	Students	Surplus or Deficit	Students	Surplus or Deficit
UPPER COUNTY												
Elementary	694	812	-118	924	940	-16	1,010	-86	1,020	-96	1,070	-146
Middle	455	427	28	455	440	15	550	-95	570	-115	570	-115
High	878	550	328	878	630	248	620	258	760	118	760	118
TOTAL	2027	1789	238	2257	2010	247	2,180	77	2,350	-93	2,400	-143
LOWER COUNTY												
Elementary	3,573	4,122	-549	4,807	5,030	-223	4,980	-173	4,860	-53	4,790	17
Middle	1,215	2,085	-870	2,215	2,440	-225	2,910	-695	2,750	-535	2,760	-545
High	2,126	2,570	-444	3,654	3,230	424	3,490	164	4,100	-446	3,760	-106
TOTAL	6,914	8,777	-1863	10,676	10,700	-24	11,380	-704	11,710	-1034	11,310	-634
TOTAL COUNTY												
Elementary	4,267	4,934	-667	5,731	5,970	-239	5,990	-259	5,880	-149	5,860	-129
Middle	1,670	2,512	-842	2,670	2,880	-210	3,460	-790	3,320	-650	3,330	-660
High	3,004	3,120	-116	4,532	3,860	672	4,110	422	4,870	-338	4,520	12
TOTAL	8,941	10,566	-1625	12,933	12,710	223	13,560	-627	14,070	-1137	13,710	-777
Notes: <ul style="list-style-type: none"> • Future changes in programs may lead to capacity changes. • Shaded areas indicate actual or projected deficits. • Projections from <u>Forecast 2015</u>, the report of the Comprehensive Plan Forecast 2015 Committee, adopted by the York County Board of Supervisors January 17, 1996. 												

Table 14

As in the past, lower County schools will continue to bear the brunt of this growth. Based on projected enrollment, there will be some overcrowding at the elementary and high school levels in the lower County and at the elementary and middle school levels in the upper County. The amount of overcrowding will not likely be sufficient to warrant construction of additional schools, but will require some additions to existing facilities, or possibly, where the problem is temporary, portable classrooms. With respect to

middle school overcrowding in the lower County, it appears that a significant addition to an existing middle school will be required shortly after the year 2000.

CHANGES SINCE 1991

Shortly after the adoption of the Comprehensive Plan in 1991, a sudden and unexpected surge in school membership during 1991 and 1992 caused great concern. The situation was exacerbated by the School Board's decision to place sixth graders in the existing intermediate schools which were designed for two grade levels rather than three and by a re-evaluation of the student capacity of the various schools. This sudden school crowding led to several initiatives in the early '90s, including the formation of a long-range school planning committee to review school attendance zone boundaries. This committee was formed by the School Board at the suggestion of the ad hoc Superintendent's Committee on Resources Imbalance in Secondary Schools, which was created to study the problems of secondary school overcrowding and under utilization. The Resources Imbalance Committee recommended a series of actions and policies to alleviate these problems. In addition, the County initiated a substantial capital construction program. Between 1992 and 1997 Grafton High/Middle School was built, and additions were programmed at Tabb High School and Tabb Middle School. At the elementary level, additions and renovations were made at Yorktown, Grafton/Bethel, Magruder, Coventry, Bethel Manor, Tabb, and Dare. The construction program has provided sufficient capacity to meet student enrollment up to this point in time. Between 1992 and 1998, growth in student enrollment has slowed significantly. The changes made to the Comprehensive Plan in 1992 to revise student enrollment projections have been adjusted in this plan in light of the moderation in enrollment growth since 1992.

APPENDIX C: ECONOMIC DEVELOPMENT

EXISTING CONDITIONS

Despite occasional downturns brought on by national economic recessions, York County has experienced long-term economic growth during the post-World War II era. In the late 1950s, the development of the Amoco refinery and the Virginia Power Yorktown Power Station provided the County with a strong heavy industrial base, providing approximately 400 well-paying jobs and greatly bolstering local tax revenues. The County's second recent economic expansion began in the 1970s and continued throughout the 1980s. During this time, York County experienced dramatic new motel construction and retail development. Motel construction in the upper County was largely a result of the widening of Bypass Road (Route 60) and the private provision of public water and sanitary sewer service to this area. This provided York County with a viable location to attract new lodging spaces demanded by increasing visitation to the Williamsburg area. The dramatic growth in the County's retail sales resulted from both the development of several new shopping centers to serve a growing residential population and the tourist commercial development mentioned above.

Spurred by a second retail boom, York County's economic growth in the 1990s has surpassed that of its neighbors not just on the Peninsula but throughout the metropolitan area. Although perceived primarily as a "bedroom community," York County attracted nearly \$100 million worth of commercial and industrial development from 1990 through 1996, creating almost 1,000 new jobs and boosting taxable sales by over \$100 million. Wages have lagged, however, because most of the new jobs have been in the relatively low-paying retail trade and services sectors.

Employment

For decades York County's employment base has been dominated by the Federal government, primarily the Yorktown Naval Weapons Station. Although the government--Federal, State, and local--still dominates the jobs base with a 29% share, the County is making the transition from a public sector-based economy to one that is increasingly reliant on the private sector. In 1980, the public sector accounted for more than half of the County's employment base; by 1990 it accounted for about a third. Although Federal employment cutbacks have contributed to this transition, most of it is due to strong private sector job growth: for every government job lost between 1980 and 1990, **ten** private sector jobs were created, resulting in a net increase of over 3,800 jobs, or 47%. Job growth has continued in the 1990s, albeit not at the same rapid pace. Between 1990 and 1996, the County's employment base has grown by almost 9%, and *private sector* employment has grown **19%** (1,560 new jobs).

AT-PLACE EMPLOYMENT: SELECTED JURISDICTIONS								
JURISDICTION	1991	1992	1993	1994	1995	1996	1997	Percent Change 1991-97
Hampton	58.3	58.1	58.9	58.4	58.8	58.4	59.5	2.1%
James City County	15.9	17.8	17.3	18.0	19.6	19.8	19.8	24.5%
Newport News	84.8	85.1	84.8	85.0	85.3	87.5	91.7	8.1%
Poquoson	1.2	1.2	1.4	1.4	1.4	1.5	1.5	25.0%
Williamsburg	15.2	14.5	15.4	15.6	17.1	17.7	17.5	13.8%
YORK COUNTY	12.1	12.4	12.8	13.2	13.5	13.8	14.6	20.7%
Peninsula	187.5	189.1	190.6	191.6	195.7	198.7	204.6	9.1%
Norfolk MSA	570.7	577.2	586.9	609.1	620.7	632.4	656.8	15.1%
Virginia	2,776.1	2,797.7	2,868.7	2,953.4	3,024.6	3,080.5	3,171.7	14.3%

Source: Virginia Employment Commission

Table 15

In comparison with surrounding localities, York County has more of its employment in government and construction and less in trade, services, and F.I.R.E. (Finance/Insurance/Real Estate). *Private* sector employment is dominated, as in every Peninsula locality except Newport News (home of Newport News Shipbuilding and Drydock), by retail trade and services. Most of the new jobs created during the 1990s have been in these two sectors, which increased between 1990 and 1996 by 6.3% and 5.6% respectively. The remaining employment sectors did not change significantly.

Wages

As shown in **Table 16**, wages in York County are average in comparison with those offered in surrounding jurisdictions and are below average in comparison with the metropolitan area and the state. As the proportion of relatively low-paying retail trade and services sector jobs has grown and that of well-paying Federal jobs has declined, York County has lagged behind most of its neighbors in wage growth. The average weekly wage in the County increased by 6.5% between 1991 and 1996, while the metropolitan area and the State, by comparison, experienced wage increases of 13.6% and 16.9% respectively. When adjusted for inflation, the average weekly wage in York County actually *fell* by 7.8% while the average for the metropolitan area declined 1.4% and the statewide average increased 1.5%. On the Peninsula, where wages are below the average for the metropolitan area and well below the State average, only James City County experienced weaker wage growth than did York County.

Retail Sales

With the exception of the 1989-91 period when the nation was in the midst of a recession, retail sales in the

COMPARATIVE AVERAGE WEEKLY WAGES, 1991-1996 (For Quarter ending June 30)								
JURISDICTION	1991	1992	1993	1994	1995	1996	1997	Percent Change 1991-1997
Hampton	\$421	\$422	\$433	\$454	\$468	\$466	\$476	10.7%
James City County	\$383	\$347	\$379	\$378	\$376	\$403	\$410	5.2%
Newport News	\$435	\$451	\$465	\$483	\$490	\$501	\$507	15.2%
Poquoson	\$295	\$297	\$299	\$315	\$311	\$332	\$331	12.5%
Williamsburg	\$337	\$352	\$354	\$373	\$367	\$377	\$398	11.9%
YORK COUNTY	\$385	\$399	\$396	\$395	\$407	\$410	\$430	6.5%
NORFOLK MSA	\$403	\$406	\$419	\$434	\$445	\$458	\$474	13.6%
VIRGINIA	\$451	\$464	\$478	\$497	\$506	\$527	\$550	16.9%

Source: Virginia Employment Commission, Covered Employment and Wages in Virginia by 2-Digit SIC Industry (published quarterly)

Table 16

County have been on the rise since 1980, with especially strong growth spurts in 1986-87 and 1993-94 (see **Figure 17**). Taxable retail sales in York County have skyrocketed in recent years, increasing 60% between 1991 and 1997. In *real* terms (i.e., adjusted for inflation), this represents a sizable increase of 25% in five years. York County's percentage increase in retail sales during this period far exceeded those of neighboring localities as well as the metropolitan area and the State. As a result, York County's share of Peninsula retail sales increased from 8.7% in 1990 to 10.9% in 1997. Most of the sales growth in recent years has been in the General Merchandise Group, where sales more than doubled – increasing by \$78.3 million – from 1990 to 1995. In per capita retail sales, York County ranks fourth on the Peninsula behind Williamsburg, James City County, and Hampton.

TAXABLE SALES, 1990-1997 (Thousands of Dollars)									
JURISDICTION	1990	1991	1992	1993	1994	1995	1996	1997	Percent Change 1988-97
Hampton	937.7	926.2	999.5	977.3	1,010.1	997.7	1,007.9	1,095.2	17%
James City County	328.3	385.2	368.1	382.2	406.5	449.8	502.4	534.3	63%
Newport News	873.0	861.6	976.5	1,041.9	1,047.1	1,134.1	1,169.6	1,245.2	43%
Poquoson	24.1	24.5	24.7	25.5	24.5	26.3	27.6	28.3	17%
Williamsburg	300.7	253.3	262.8	304.5	324.8	331.3	293.7	317.7	6%
YORK COUNTY	227.6	224.6	241.7	284.0	325.3	342.6	361.7	393.1	73%
Peninsula	2691.4	2675.4	2873.3	3,015.4	3,138.3	3,281.8	3,362.9	3,613.8	34%
Norfolk MSA	8,729.8	8,619.0	9,019.2	9,687.8	10,191.7	10,713.0	10,996.7	11,663.4	34%
Virginia	42,001.4	41,213.8	42,904.9	46,705.7	49,728.1	52,087.0	53,923.3	57,047.8	36%

Source: Virginia Department of Taxation

Table 17

Tourism

As noted earlier, York County experienced a dramatic increase in tourism during the 1970s and '80s as development occurred along the Bypass Road corridor. This was reflected in the County's Hotel/Motel/Tourist Court and Camp Sales, which increased from \$761,000 in 1970 to \$6.4 million in 1980 and \$23.4 million in 1990. Motel sales stalled in the late 1980s, however, declining for four consecutive years before turning upward again in 1995. Between 1988 and 1996, the County's share of Peninsula motel sales dropped from 12.3% to 9.2%.

Average annual motel occupancy rates have been fairly stable during the 1990s. Although specific occupancy rates for the County are not available, such data is available for the Williamsburg market area, which includes about 90% of the lodging spaces in York County as well as James City County and the City of Williamsburg. Tourism in the Williamsburg area is highly seasonal, with peaks in the summer and troughs in the winter. As a result, the motel occupancy rate typically ranges from a low of 15%-20% in January to a high of 85%-90% in July. The average annual rate is approximately 55%.

Tax Revenue

Business growth has had a strong impact on the County's tax base. Total tax revenues generated by commercial and industrial development almost doubled between 1990 and 1995, increasing from \$10.4 million to \$19.4 million. Although a portion of this increase is attributable to increases in the real estate tax rate, it is taxes *other* than the real property tax--such as the business personal property, business professional occupation licensing (BPOL), and machinery and tools taxes--that are responsible for the majority (60%) of this increase. Though substantial, York County's economic growth during the 1990s has been largely overshadowed by residential growth. Consequently, the residential share of the County's real property tax base grew slightly (from 67% to 68%) from 1990 to 1995, while the residential share of the County's *total* tax base increased from 43% to 45%.

ECONOMIC OPPORTUNITIES AND CONSTRAINTS

Businesses consider a variety of factors when making locational decisions. York County must concentrate on these both to attract new businesses *and* to retain existing ones. Those factors that work to the County's advantage are considered opportunities, whereas those on which the County needs to improve are constraints.

Labor Force

Business needs access to a labor force that is not just well-trained but also readily trainable. This is particularly important in today's environment of rapid, ongoing change that requires continual education and retraining of employees. As noted in the Demographic Profile, York County has a well-educated and highly trained labor force, and graduates from County schools continually rank at or near the top in the region on education output measures such as test scores and graduation rates. The County is also home to many highly trained military retirees. Unfortunately, many if not most of the high-paying jobs held by County residents are located outside the County. This is how York County maintains such a high median household income relative to surrounding localities while the wages, in general, are only average.

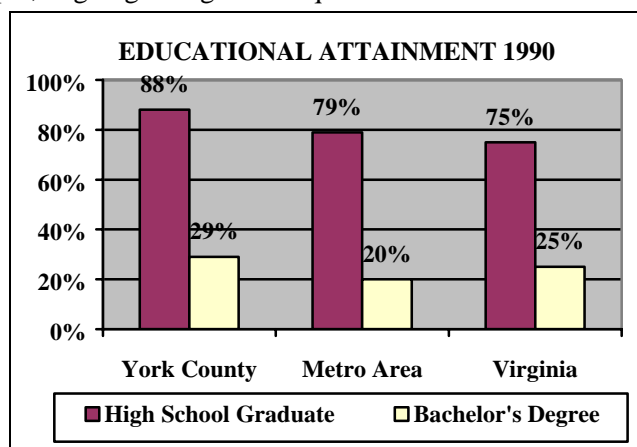


Figure 23

Infrastructure

Businesses need accessibility, and in a vehicle-oriented economy, immediate proximity to the Interstate highway system is essential. York County enjoys close proximity to four I-64 interchanges and has another

three full interchanges located entirely within the County. In addition, the planned extension of Fort Eustis Boulevard eastward from its present terminus at Route 17 to the intersection of Goodwin Neck Road and Seaford Road will provide a direct interstate connection to 182 acres of undeveloped industrial land in the Goodwin Neck area, dramatically improving the access and hence the marketability of this land for economic development. Another Economic Development Priority Area of the County where access needs to be improved is the area south of Victory Boulevard. Extension of Commonwealth Drive from Route 171 to Route 17 would open up a large section of vacant industrial property to development.

With regard to air transportation, the Peninsula is at a competitive disadvantage with other areas and regions. Newport News/Williamsburg International Airport, located in Newport News with runways extending into York County, serves the Peninsula with few direct flights while Norfolk International Airport and Richmond International Airport offer many more flights but are about an hour away from most areas of the County. All three airports are considering future expansion plans.

Like the transportation network, utilities are a vital component of a locality's infrastructure and thus its relative attractiveness to business and industry. York County has made a significant investment in providing public water to the Lightfoot area to attract economic development, but there are other areas that have a strong potential for economic development provided that the infrastructure is in place. These Economic Development Priority Areas are shown on Map 4 and include the Lightfoot area, the Camp Peary interchange, the Mershon-Royalls and Egger tracts in the upper County, the Virginia Power property on Old York-Hampton Highway, and the Victory Boulevard/Commonwealth Drive area.

Business Costs

Obviously, the cost of doing business in a locality is an important component of its attractiveness as a business location. York County offers favorable tax rates and wage rates are below the average for both the state and the region. The cost of constructing a new industrial plant or office building also figures into business locational decisions. In general, manufacturing businesses would rather occupy an existing building than build a new one. Studies have shown that over 70% of relocating businesses only consider localities with available industrial buildings. Light industrial and office development on the Peninsula has been largely concentrated in Hampton and Newport News, which boast fully serviced properties such as Copeland Industrial Park, Langley Research and Development Park, and Oyster Point. Unfortunately, York County does not have such properties available at present; however, the Industrial Development Authority in partnership with the County and Virginia Power, has built a 60,000-square foot industrial shell building on Old York-Hampton Highway that is being marketed to businesses in search of a site.

Quality Of Life

Business locational decisions represent an investment in the community. Employees require a pleasant living environment that includes housing that they can afford, good schools, parks, and other recreational facilities and programs. Unlike older central cities that must face the daunting task of reversing negative images, York County is fortunate in that its natural locational and aesthetic advantages result in a very favorable image for the County. York County, which has the highest net migration rate in the metropolitan area and the fifth highest in Virginia, certainly offers a pleasant living environment.

CHANGES SINCE 1991

Since the adoption of the Comprehensive Plan in 1991, York County has attracted over \$70 million in commercial and industrial development, including both new construction and expansion of and alterations to existing construction. Many of the new businesses are located along Route 17, but Victory Boulevard (Route 171) has also emerged as a major commercial corridor and shopping destination not just for County residents but for people living in neighboring localities as well. In the upper County, the Route 199 corridor in the Lightfoot area has begun to attract economic development with the completion of Route 199 between I-64 and Richmond and the pending completion of International Parkway and the Mooretown Road extension. In addition, development of the Bypass Road (Route 60) corridor has continued with the construction of several new businesses oriented primarily toward the tourist market.

In addition, the County and the IDA have made significant investments in infrastructure since 1991, particularly in the Economic Development Priority Areas designated in the 1991 Comprehensive Plan, both to encourage new businesses to locate in the County and to retain existing businesses. These include the construction of an industrial “shell” building within the York River Commerce Park off of Old York-Hampton Highway; the extension of public facilities to the shell building and to the Lightfoot area; and the use of County funds to expedite construction of International Parkway, the Mooretown Road extension, and the extension of Fort Eustis Boulevard.

APPENDIX D: ENVIRONMENT

EXISTING CONDITIONS

AIR QUALITY

In general the existing air quality in York County is good and is expected to remain so during the period covered by this plan. York County's two major sources of air emissions are Amoco's Yorktown Refinery and Virginia Electric Power Company's Yorktown Generating Station. There are also four federal government facilities that are classified as minor sources.

The regulation of air quality in the County is accomplished through the implementation of the provisions of the federal Clean Air Act as revised in 1990. This legislation and any future revisions are reflected in regulations promulgated by the federal Environmental Protection Agency (EPA) which in turn are enforced by the Commonwealth of Virginia's Department of Environmental Quality through the State Implementation Plan (SIP). In this process National Ambient Air Quality Standards (NAAQSs) are enforced through permits for certain stationary sources and by other regulations effecting the operation and maintenance of certain mobile sources.

York County is part of the Hampton Roads Air Quality Region which is presently in compliance with all applicable NAAQSs. Until recently this region was listed as a marginal non-attainment area for ozone (smog) but the EPA, after being petitioned by the Commonwealth and with the availability of new data, recently reclassified the region as an attainment area. As a result of this action, York County can consider any industrial or commercial growth as long as proposed facilities meet the new source performance standards and the emissions would not cause a violation of the existing NAAQSs. However, it is possible that raising the standards by the EPA could result in more severe future emissions control limits on existing sources, prohibition of new sources of emissions and/or programmatic controls to reduce mobile emission sources.

Climate

The climate of the Virginia Peninsula is mild with average January temperatures of 42°F and July average temperatures of 79°F. The growing season is 190 days long and the annual rainfall averages about forty-five inches and does not vary significantly from month to month.

LAND

Topography

The topography of land in York County varies from generally low, flat land with high water tables in the lower County to rolling terrain with well-drained soils in the northern reaches at elevations of approximately 100 feet. The Steep Slopes map shows those areas in the County with slopes greater than 15%, which are subject to potential erosion and special Zoning Ordinance regulations to ensure the integrity of these slopes.

Soils

There are six main soil categories in the County as defined by the Virginia Soils Conservation Service. The different soils types dictate limitations on construction techniques required for successful development in each area. A significant issue that has surfaced in the past several years has been testing and construction requirements associated with shrink-swell soils. To date there have been no major problems in York County but both James City and Chesterfield Counties have experienced major shrink-swell issues.

The County contains soils types that are conducive to agriculture use, but, for economic reasons, farming of land is often an interim use until the land can be developed for more profitable uses. The County's land

use taxation program provides tax relief for much of this type of property, including qualifying lands dedicated to agricultural or horticultural use.

A significant portion of the County has a high water table, defined as being within 2.5 feet of the ground elevation. In addition, much of this high water land has been classified as hydric and remains saturated for enough time during the growing season to develop anaerobic conditions. This characteristic is significant in making wetland determinations.

The suitability of soils for supporting a properly functioning septic system is dependent on such factors as slope, susceptibility to severe wetness, flooding potential, percolation (permeability) rate, and filtering characteristics. With few exceptions, the entire County is generally characterized by soils with severe limitations for septic systems. (A map of these areas can be found in a separate report, Charting the Course for the Chesapeake Bay.) There are system failures reported by the Health Department in various areas of the County; however, they should not be construed as an absolute indication that septic systems will not function properly in a particular area. For site-specific conditions, on-site surveys and samples must be obtained. The combined characteristics of a high water table, slope, permeability, and flood potential make the proper functioning of septic tanks difficult in the lower County. Periodically the Health Department conducts a “shoreline sanitary survey” of the County (discussed in more detail below) and, where on-site deficiencies are identified, the property owner is notified of the violation. Follow-up inspections are conducted by the local Health Department to ensure that corrections are made to the system.

Erosion and Sedimentation Control

Adequate erosion control measures will minimize site sediment runoff and, as these sediments also tie up phosphorus and nitrogen, such control results in the reduction of nutrients to the receiving waters. The current Erosion and Sediment Control Ordinance which was adopted in 1991 requires that all land disturbances greater than 2500 square feet, including single family home construction must meet County standards relative to the installation of control systems such as silt fences, straw bales, and check dams to control soil loss. The erosion and sediment control ordinance is currently being updated for compliance with the latest State model ordinance.

The Colonial Soil and Water Conservation District provides assistance to Peninsula localities on the conservation of soil, water and related natural resources. The District staff also works with the agricultural community in preparing conservation plans and advising farmers on proper land management.

In 1990, the County and the District formalized this working relationship with a Memorandum of Understanding. Included as part of the agreement are provisions for the Soil Conservation District to perform the following services:

- Assist the County with erosion and sediment control programs;
- Provide education on natural resource conservation; and
- Assist in developing ordinances, policies, and plans for managing soil, water, and natural resources.

A member of the York County Board of Supervisors is appointed as a liaison representative to the District to ensure joint coordination of soil conservation efforts.

WATER QUALITY

Water quality is a critical issue to every community but particularly so for York County because of its location and topography. Not only is water an important resource in terms of providing drinking water, it also provides important recreational, aesthetic, and economic benefits to the County and its citizens. The regulation of surface and ground water involves a significant number of federal, state, and local programs. These regulations are directed mainly at three targets: point sources such as end-of-pipe discharges and underground storage tanks, nonpoint sources such as stormwater runoff, and nontidal and tidal wetlands.

All of these sources together contribute to the level of water quality in the Chesapeake Bay, the York River, and all of their tributaries.

York County, for the most part, enjoys high-quality water in both its fresh water and brackish water systems. The protection of water systems in Virginia is the responsibility of the State Water Control Board and its regulatory agency the Department of Environmental Quality and to some extent the State Board of Health. Some specific issues relating to these systems are discussed below. More detailed technical information about water quality, shoreline and streambank erosion, and waterfront access can be found in a separate companion report entitled Charting the Course for the Chesapeake Bay, prepared in 2001 by County Environmental and Development Services Department and Planning Division staff.

Fresh Surface Water

The major source of drinking water in York County is surface water impoundments, all of them owned by other jurisdictions. The five surface water impoundments used as reservoirs for drinking water are located completely or partially in the County are listed below:

- Lee Hall Reservoir (owned and operated by the City of Newport News)
- Harwoods Mill Reservoir (owned and operated by the City of Newport News)
- Waller Mill Reservoir (owned and operated by the City of Williamsburg)
- Big Bethel Reservoir (owned and operated by the Federal Government for Langley Air Force Base)
- Jones Pond (owned and operated by the Federal Government for Cheatham Annex)

Because the quality of surface water is directly related to land use, York County amended its zoning ordinance by creating a Watershed Management and Protection Area (WMP) overlay district in 1985. The intent of the regulations of the WMP overlay district is to ensure the protection of watersheds surrounding current and potential public water supply reservoirs. The regulations prevent the degradation of reservoirs from the operation or accidental malfunctioning of the use of land or its appurtenances within the drainage area of water sources.

The WMP provisions that apply to these areas require that a 200-foot vegetated buffer be maintained from the edge of any reservoir or tributary stream. They also prohibit certain uses, such as feed lots, septic drainfields, and landfills, within 700 feet of reservoirs and their associated tributary streams. Storage of hazardous wastes is specifically prohibited throughout the district. In addition to limiting land use, the regulations require an impact study addressing water quality to ensure that post-development runoff does not exceed pre-development rates or quality.

The water quality in all of these reservoirs is high with the exception of the Big Bethel Reservoir, where urbanization and development have diminished the water quality. The federal government has recently constructed a new water treatment facility at Big Bethel to provide high-quality potable water through treatment.

Ground Water

Ground water is directly related to surface water and is itself an important drinking water source. It is contained in the saturated pore spaces of sediments beneath the surface of the Earth. The underwater formations that yield water to wells are called *aquifers*. They store, disperse, and transmit water. Groundwater is replenished by precipitation on the land surface or downward seepage of water through overlying beds. The amount of water in an aquifer contains depends on two features –porosity and permeability of the surrounding soils.

Porosity refers to the amount of open space (voids) between the sands, silt, and gravel. Permeability is the ability of the soil to transmit water through the aquifer material. Sandy and gravelly soils can hold large amounts of water because there are larger and more connected spaces between the particles. Clay soils, on the other hand, have small spaces that are not connected, making water passage difficult. Annual recharge to the groundwater system from precipitation is approximately ten inches per year in the York County area.

The ground water flow system in the Coastal Plain is a multi-aquifer system generally flowing from west to east. Studies have identified at least seven major aquifers – three shallow and four deep – in York County. Generally, the oldest aquifers are the deepest.

In general, there are six hydrogeologic units comprising the shallow aquifer system, three aquifers and three confining layers. The Columbia aquifer is the County's uppermost and is unconfined, its upper limit being the seasonally variable water table and its depth being at least five feet (5'). It is not the aquifer of choice for potable water because of its relatively low yields, poor water quality, and its susceptibility to contamination. There are some very shallow wells in the County (nine feet) still being used for potable water in older neighborhoods.

Of the deep aquifers, the Chickahominy-Piney Point aquifer, characterized by black and white sands interspersed with shells and dark, silty clay, is important to York County in that it is used by the five wells for public water distribution. This aquifer is also used by industry in West Point and Franklin and lies approximately 150 to 400 feet below mean sea level. Below this aquifer is the Aquia Aquifer, which is not utilized much in eastern Virginia because the deposits are fine-grained and commonly contain a limy mud matrix and thin limestone beds. Deeper still is the Upper Potomac Aquifer, capable of producing large quantities of good water suitable for most uses. The two lowest aquifers, the Middle and Lower Potomac, also are capable of supplying large quantities of water but are generally too deep for all but major industrial and municipal applications.

The Virginia Department of Environmental Quality has designated York County as part of a ground water management area and major withdrawals (more than 10,000 GPD) require approval by the State Water Control Board (SWCB). The SWCB has authorized the withdrawal of 24.9 million gallons per year (68,219 GPD or 0.069 MGD) from the three wells comprising the Skimino Hills/Banbury Cross system. The depths of these wells, which are pumping an average of almost 57,000 GPD, range from 283 to 324 feet. The two wells that make up the Lightfoot system are authorized to withdraw 204.4 million gallons per year (560,000 GPD or 0.56 MGD). These wells are pumping an average of 30,567 GPD and are 310 and 318 feet deep.

The overall natural quality of the groundwater in Hampton Roads is high. Large-scale human-induced contamination of the region's aquifers is not a problem. There are seven major threats to groundwater quality, including inefficient septic systems; leaky underground storage tanks; spills and improper disposal of hazardous material; leaky surface water impoundments; leaky landfills; improper pesticide and fertilizer application; and pumping induced saltwater encroachment. The most vulnerable aquifer in the County is the Columbia since it is shallow and unconfined. Deeper aquifers can be contaminated from downward migration, and the health and economic impacts on a community can be high. It is imperative, therefore, that groundwater be protected.

In compliance with the Safe Drinking Water Act, York County is required to test for over one hundred contaminants and produce an annual Consumer Confidence Report to document the quality of the drinking water distributed to customers via the County's distribution systems in the Skimino Hills, Banbury Cross, and Hubbard Lane areas. Testing conducted in 1998 detected only four contaminants (copper, fluoride, gross alpha, and gross beta), all of which were well within permissible ranges.

In addition, the Virginia Department of Health monitors wells and water supply systems serving 15 or more connections and systems serving more than 25 persons for more than 60 days of the year. Community wells and systems have quarterly testing and reporting requirements. Local Health Departments monitor non-community and non-transient wells. They also process the permits for private wells and administer the State's Private Well Regulations, which are intended to ensure that private wells are located, constructed, and operated in a manner that does not adversely affect public safety, health, or groundwater resources. The local Health Departments do not monitor, inspect or track abandoned wells. Because improperly abandoned wells are a possible point of aquifer contamination, York County has an interest in assisting the Health Department to establish a database of abandoned wells and insuring their proper closure. According to both the Williamsburg and Newport News offices of the Health Department, there have been no reports or complaints of saltwater intrusion into private wells in York County.

In 1999, the EPA required all state health departments to assess wells within their jurisdiction to identify aquifer contamination from surface runoff. The well serving the Captain John Smith Lodge on Richmond Road had experienced some poor test results and was therefore tested by the local Health Department for the required duration. It was determined that the well was not contaminating the aquifer via surface runoff.

Groundwater consumption in York County via the public distribution system will likely increase over time. The Skimino wells are pumping at 83% of their capacity, but the Lightfoot wells are at only 0.5% of capacity. When these two systems are connected, additional connections will be permitted in the Banbury Cross and Old Quaker Estates area. As commercial Lightfoot consumers are added to the system, it will be necessary to augment the system with additional water. Ultimately the County plans to turn these groundwater-based distribution systems over to Newport News Waterworks.

According to the 1990 Census, 1,541 households in the County obtained water from private drilled wells in 1990 and 271 households obtained water from dug wells. Cumulatively, it is estimated that these homes on private wells consume an average of 380,000 GPD.

Although public water hook-up in the County is not mandatory, the number of private wells used for potable water is decreasing. All *new* construction must use public water if it is available, and as capital improvement projects continue to bring public water to existing neighborhoods, more residents are abandoning private wells in favor of the public water system. Neighboring localities have adopted ordinances requiring existing residences to connect to the public water system in the event of private well failure.

Most of the groundwater in the County distributed for drinking water comes from the Chickahominy-Piney Point aquifer, which is a confined aquifer. The confining units between the aquifers limit the movement of pollutants into the water supply, hence the majority of groundwater from wells in the County is afforded a significant level of protection from contamination. However, an unknown number of private wells in the County are withdrawing water from the unconfined surficial aquifers. Because of the lack of confining units, pollutants from the land's surface, underground storage tanks, or sanitary septic drainfields can move freely into the groundwater.

There are six landfills in the County, three of them active and three closed. The Virginia Department of Environmental Quality regulates landfills to prevent contaminants from leaching into groundwater.

Military installations in the County have documented soil and groundwater contamination problems. Cheatham Annex contains a defunct fuel farm and soils that are contaminated with fuel and solvents. The Naval Weapons Station contains a Superfund site which, according to the EPA, has been contaminated with polychlorinated biphenyls (PCBs), explosives, contaminated wastewater, organic solvents, and other material involved in the testing and manufacture of explosives. There is no evidence of contaminated groundwater leaving either facility. York County will continue to monitor these situations as federal studies of the problems continue.

There are currently seventeen open cases of leaking underground storage tanks in the County that are being monitored and regulated by the DEQ through the LUST (Leaking Underground Storage Tank) program. Six of these cases are located at the BP-Amoco refinery and four on local military bases. Although inclusion in this list does not necessarily mean there is an active leak, it does mean that steps required to clean up the site are underway.

The Department of Health routinely conducts Shoreline Sanitary Surveys to identify and evaluate sources of pollution that have the potential to contaminate shellfish. The focus is on surface water pollution, but some of the information is also pertinent to an evaluation of groundwater conditions, especially relating to shallow unconfined aquifers. One such survey identified ten houses in the Skimino Hills subdivision that have defective septic systems. Several other homes in this neighborhood are identified as having potential pollution problems. It should be noted that many of the septic tank problems noted by the Health Department either have already been remedied or will be remedied by the year 2005. In 1999, the County received a grant from the Chesapeake Bay Local Assistance Department to map existing septic tanks and initiate a program for septic tank pump-out. Beginning in the year 2000, septic tank owners were notified

of the need for pump-out every five years and were required to begin a five-year regular pump-out maintenance program. This program will assist in the proper functioning of on-site sewer systems and thus protect the groundwater and surface water. In addition, the County's ongoing program to extend sanitary sewer to low-lying areas is based on a priority system driven by environmental and public health needs. Connection to public sanitary sewer in the County is mandatory.

An item of note is that the deeper aquifers have been dropping an average of two feet per year for at least the past twenty-five years. This drop is due primarily to increased production from large ground water users such as the paper mill in West Point and food processing plants on the southwest side of the James River. Many of the homes in the upper County utilize the aquifers and are of an age when this ongoing draw-down is beginning to affect the performance of their wells such that many will require replacement or lowering of the screen areas.

York County has three production wells that serve the Skimino/Banbury Cross residential communities in the upper County and has recently installed two additional production wells to service the Lightfoot Corridor for future commercial and light industrial development. The installation of the Lightfoot wells was approved by the SWCB and a minimal one-time draw-down of the water table with the wells at approved production was indicated by computer modeling.

The Hampton Roads Planning District Commission (HRPDC) in cooperation with its Utilities Directors Committee has a comprehensive mitigation program that will fund remediation work that may be necessitated by the installation of water supply wells by member jurisdictions; however, to date, no such issues have surfaced in York County.

Brackish Water

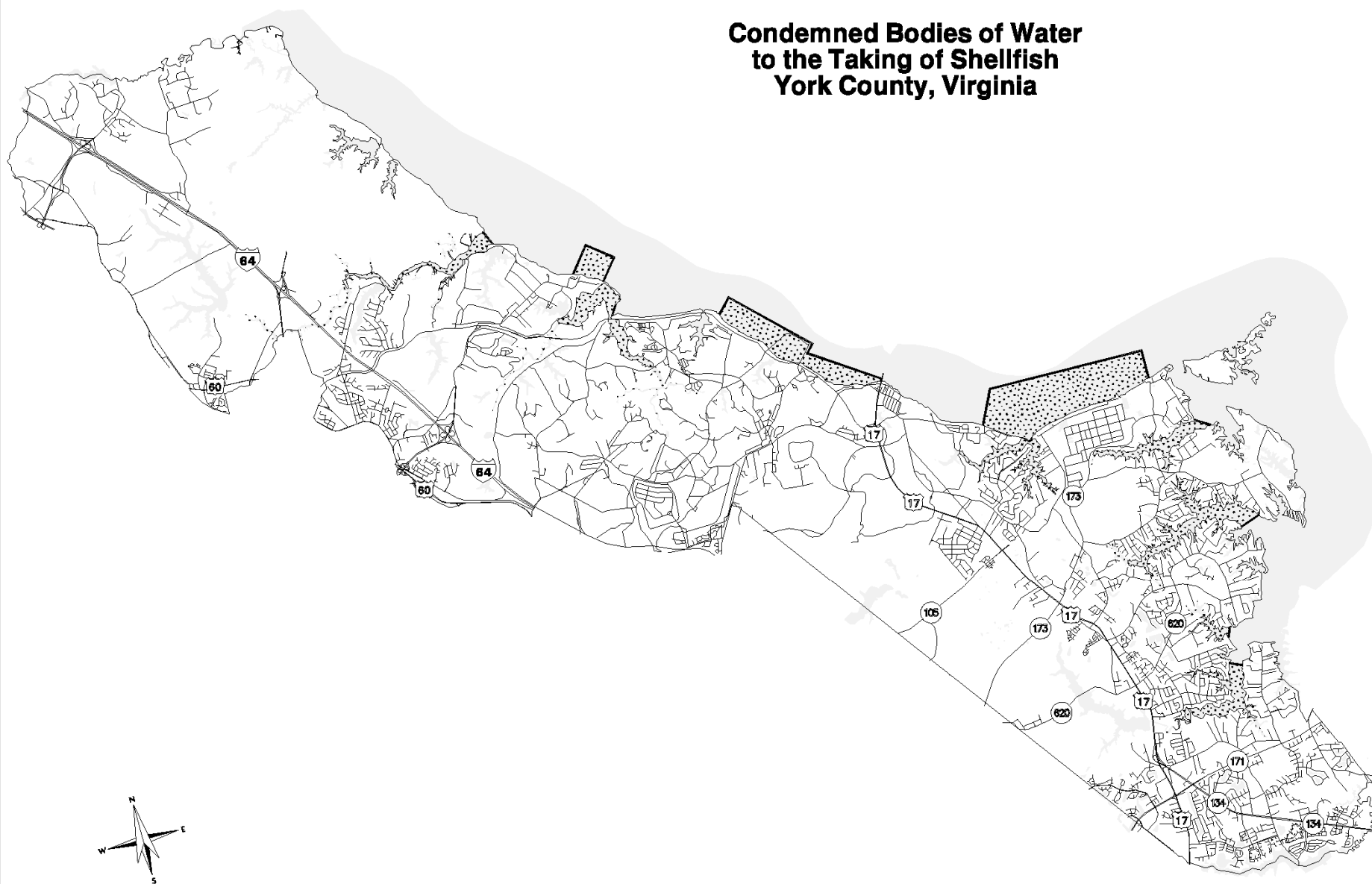
The water quality of the York River and its estuaries located in York County is acceptable for full body contact. According to the Virginia Marine Resources Commission, all of the tidal areas in the County are eligible for shellfish cultivation and growth. However, the following streams and surface water areas have been closed to direct marketing of shellfish by the Virginia Department of Health, Bureau of Shellfish Sanitation, because of high coliform bacteria counts or as a precautionary closure zone around point source discharges such as the power plant outfall:

- Wormley Creek
- Skimino Creek
- Carter Creek
- Queen Creek
- Patricks Creek
- Lambs Creek
- Poquoson River
- Chisman Creek
- Back Creek
- Felgates Creek
- Indian Field Creek
- King Creek
- York River at Cheatham Annex Sewage Treatment Plant discharge and between Sandy Point and Yorktown

The shellfish harvested in these closed areas must be relayed to warm clean water for at least two weeks prior to marketing.

Although shellfish information is available from the VMRC, fish habitat information is not. York County is home to many commercial and recreational fisheries that contribute to the local economy. Skimino Creek, which has been stressed very little by the effects of human activities, is a valuable nursery ground for white perch and striped bass. Queen Creek Marsh, which is the largest marsh creek wetland system in the County, is regarded as a major fish nursery and will remain so as long as disturbance is minimized. King and Felgate's Creeks are considered nursery areas for striped bass, white perch, and other species as are the fringing marshes of Indian Creek. Many of these creeks are located at least partly on military

Condemned Bodies of Water to the Taking of Shellfish York County, Virginia



Source: Areas were estimated from a map
containing areas delineated by the
Department of Health, Division of
Shellfish Sanitation, dated January 1991.

March 12, 2001
Prepared by York County
Computer Support Services

installations. Remaining lands adjacent to these creeks that are subject to development must observe water quality requirements for stormwater runoff and the vegetated buffer requirements of the Chesapeake Bay Preservation Act. Studies also have shown that fish populations that spawn in freshwater creeks and migrate to the ocean are very susceptible to the effects of urbanization, such as flow changes and pollution. Therefore, proper attention should be given to upland and waterfront development in these areas. Requests for dredging or filling in the wetlands and waterways adjacent to these nursery areas should be discouraged.

According to VIMS, there are submerged aquatic vegetation (SAV) beds in certain sections of the York River in York County. Approximately 15,000 acres along the York and Poquoson Rivers were included in the Chesapeake Bay Program's Tier I SAV target restoration area. The Tier I target is to restore SAV to areas currently or previously inhabited by SAV. The Tier III target includes restoration of SAV to all shallow water areas delineated as existing and potential SAV habitat.

York County recognizes SAV beds as critical living resources. Certain types of land activities can contribute excessive pollutants into adjacent waterways, degrade water quality, and thus impact SAV habitats. The intensity of land use and the density of piers can increase or restrict boat traffic along waterways with SAV. Shoreline erosion control structures can also affect SAV beds.

In 1972 the U.S. Congress passed the Federal Water Pollution Control Act. The goal of this act, which later became the Clean Water Act, is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." To achieve this goal, the Act considered only point source discharges, which are regulated through Virginia Pollution Discharge Elimination System (VPDES) permits issued by the State Water Control Board. The Clean Water Act prohibits the discharge of a pollutant into State waters without a VPDES permit. Issuance of a permit requires that industries use the "best available control technology" in order to comply with water quality standards.

In York County, VPDES permits have been issued to the following industrial and municipal dischargers for point source discharges to the York River:

- BP Amoco
- Dominion Virginia Power – Yorktown
- Cheatham Annex
- Williamsburg Water Filtration Plant
- HRSD York River – Sewage Treatment Plant
- U.S. Naval Weapons Station – Yorktown
- Harwoods Mill Water Treatment Plant

These facilities meet or exceed federal guidelines established under the Clean Water Act.

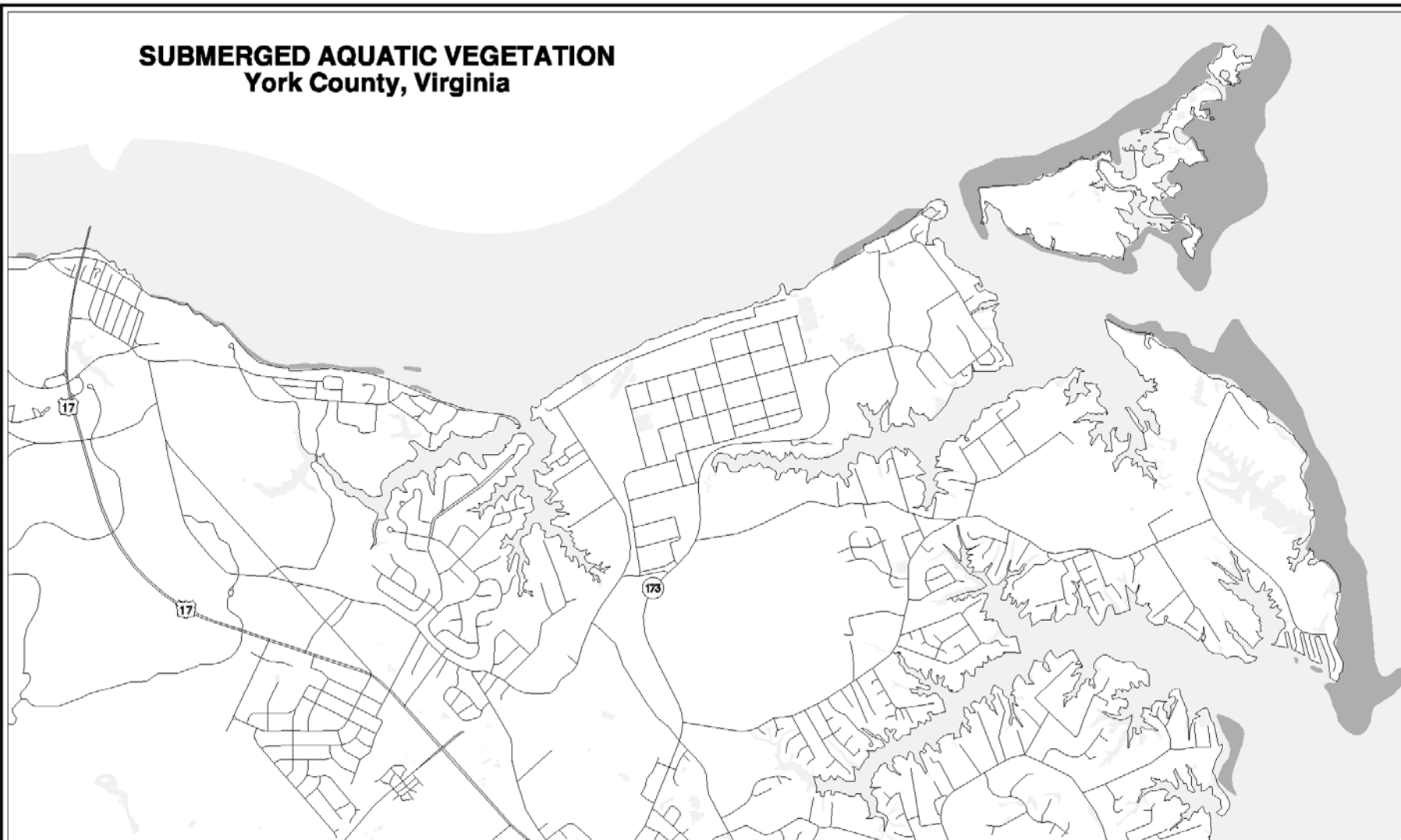
In 1987 the Clean Water Act was amended to include non-point sources (i.e., pollution from an indirect source such as stormwater runoff). According to the State Water Control Board, non-point source pollution in the lower York River basin comes from several sources, including "residential, urban, and/or agricultural runoff, failing/inadequate septic systems, natural conditions and drainage and boat pollution from the surrounding public and private boat slips." The loss of protective vegetation and the increase in impervious surfaces (buildings, roads, and parking lots) increases the amount of stormwater runoff and also the levels of pollution and nutrients. In addition to sediment and nutrients, toxins are discharged, adding to the overall stress on the finfish and shellfish population.

The EPA enacted the National Pollution Discharge Elimination System (NPDES) Phase II program in 1999. York County must submit a stormwater discharge permit for compliance with this program by the year 2003. The purpose of these regulations is to address non-point source discharges such as storm water that is a major contributor to the sediment and nutrient loadings in estuaries, rivers and the Chesapeake Bay. The NPDES Phase II program requires a stormwater management system that meets the following six minimum control measures:

- Public education

SUBMERGED AQUATIC VEGETATION

York County, Virginia



Submerged Aquatic Vegetation

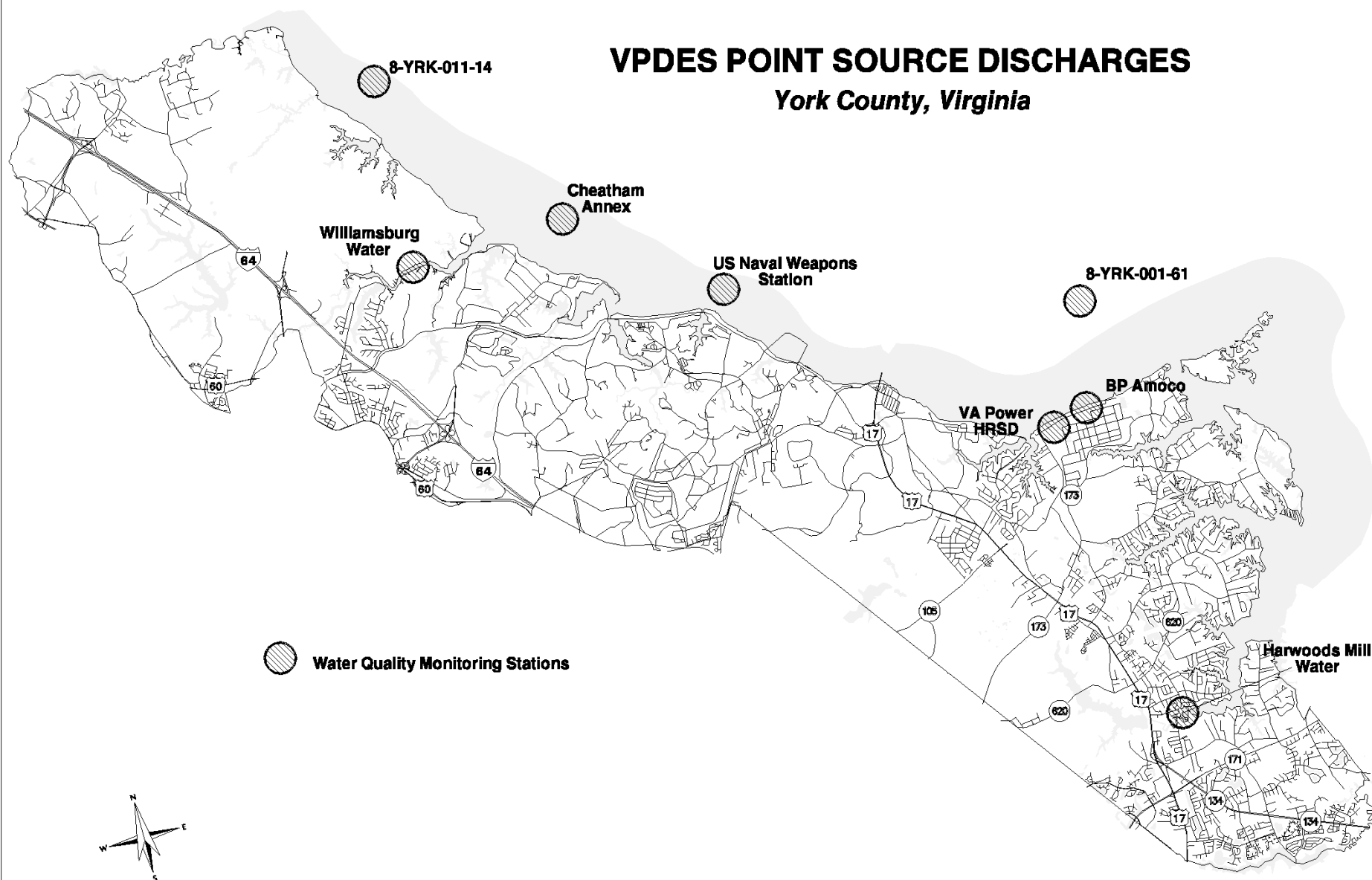
Provided by the Virginia
Institute of Marine Science



March 06, 2001
Prepared by York County
Computer Support Services

VPDES POINT SOURCE DISCHARGES

York County, Virginia



May 15, 2001

Prepared by York County
Computer Support Services

- Public involvement/participation
- Illicit discharge detection and elimination
- Construction site controls
- Post construction controls
- Pollution prevention/good housekeeping for municipal operations

Non-point source pollution from fertilized lawns and impervious areas are addressed by the Chesapeake Bay Preservation Act through the 100-foot buffer area requirement and water quality measures. In addition, non-point source pollution from failing septic systems is being reduced through the County's Utilities Strategic Capital Plan to bring public sanitary sewer to developed areas. Furthermore, the Health Department's recent adoption of stringent separation requirements between groundwater and drainfields will also help lower the bacteria counts and improve water quality. Alternative on-site sewage disposal systems approved by the Health Department and permitted by the revised Chesapeake Bay regulations may also replace failing septic systems.

Chesapeake Bay Preservation Act

To counteract the widespread degradation of the Chesapeake Bay, the Virginia General Assembly enacted the Chesapeake Bay Preservation Act in 1988. The general purpose of the Act is to require that land be managed in a manner that reduces pollutants entering the Bay by 40% by the year 2000. Local governments are required to implement the Chesapeake Bay Preservation Act provisions since the regulation of land use and development has traditionally been a function of local government. York County incorporated the regulations into its Zoning Ordinance in September 1990. In so doing, the Board of Supervisors designated certain areas of the County as Chesapeake Bay Preservation Areas, which include a Resource Protection Area (RPA), Resource Management Area (RMA), and IDA (Intensely Developed Area). The RPA includes tidal wetlands, non-tidal wetlands, and tidal shores; these areas must maintain a 100-foot vegetated buffer adjacent to and landward of the areas named and on both sides of a tributary stream. The RMA abuts the RPA and includes floodplains, highly erodible soils, non-tidal wetlands not included in the RPA, and those lands necessary to minimize erosion. The IDA encompasses areas with a significant amount of impervious surface. This classification warrants utilizing these already built areas to their highest and best use prior to converting undeveloped property.

The Chesapeake Bay Preservation Areas are within the County's Environmental Management Area (EMA) Overlay District as set forth in the Zoning Ordinance. Special development standards applicable to these areas are designed to accomplish the following goals:

- Preserving vegetation
- Minimizing land disturbance
- Minimizing impervious cover
- Controlling stormwater runoff
- Pumping out septic tanks
- Providing a reserve drainfield

In addition, to further protect the estuaries and the Bay, new waterfront developments are encouraged to provide a community pier rather than lots with individual piers.

Unfortunately, the 40% pollutant reduction goal was not met by the year 2000, and the Tributary Strategies program was initiated in 1995 to further address this goal. Each tributary or watershed will have a strategy developed by the State to address methods to reach that goal. York County drains to three different tributaries; the York River, the James River, and the Coastal area of the Chesapeake Bay.

On June 28, 2000, the Chesapeake Bay Program adopted a new Bay agreement, Chesapeake 2000: A Watershed Partnership, that will guide the next decade of restoration in the Bay watershed. Signed by the governors of Virginia, Maryland, and Pennsylvania; the Mayor of Washington, D.C.; the U.S. EPA Administrator; and the Chesapeake Bay Commission; this agreement rededicates efforts to the restoration and protection of the Chesapeake Bay system. The Agreement sets the following six goals to guide the restoration effort over the next ten years:

1. Living Resources Protection and Restoration
2. Vital Habitat Protection and Restoration
3. Water Quality Restoration & Protection
4. Sound Land Use
5. Stewardship and Community Engagement

York County has several initiatives currently underway that meet the goals of the Chesapeake 2000 agreement and will continue to pursue the goals as funding opportunities are made available.

Docks and Piers

As of 1993, there were approximately 670 private docks and piers in the County, most of them in the lower County along protected creeks and coves. High pier densities are found along Chisman Creek and sections of the Poquoson River. Potential environmental impacts of small private piers include shading, displacement of aquatic life, increased turbidity, temporary impacts from construction, and impacts relating to motorized boat use. While the individual impacts from a single dock may be relatively small, the cumulative impacts of docks and piers can be significant. For these reasons, it is preferable to have community piers serving multiple users than for each individual waterfront property owner to have his or her own private dock.

The regulation of piers has traditionally been viewed as the jurisdiction of the state. Local governments have been reluctant to regulate private piers because the state enabling authority to do so is unclear. However, local governments can manage pier density through the zoning and subdivision ordinances by clustering development away from shorelines and retaining waterfront common open space with a community pier. In York County, community piers could be encouraged for all new waterfront open space (cluster) subdivisions. Deed restrictions recorded prior to final plat recordation, can be used to prohibit individual lot owners within such a development from having an individual pier. A second way in which local governments can control pier density is through the minimum lot size and width requirements for waterfront lots. In addition, the County can work with state permitting agencies to educate waterfront property owners about pier design techniques that will minimize environmental impacts. For example, the height of a pier above the water has been found to be the most significant factor in dock design affecting the health of submerged aquatic vegetation. Ideally, a pier should be at least nine feet (9') above the submerged bottom, should have a north-south orientation, and should be no wider than three feet (3'). Also the use of alternative building materials, such as recycled PVC, is recommended over chemically-treated wood.

One of the initiatives of the Chesapeake Agreement 2000 is to increase public access points to the waters of the Chesapeake Bay and its tributaries by 30% by the year 2010. Currently York County has seven public boat ramps, all of them in the lower County, and approximately thirteen commercial/private marinas. The Colonial National Historical Park, which is open to the public, provides a huge park setting for passive recreational opportunities and wildlife habitat. Additional public access sites are increasingly difficult to find, but the County will continue to pursue the acquisition of available surplus government and private lands. Opportunities may exist for acquisition of an additional park site along Back Creek as well as Ringfield Park, currently owned by the National Park Service, which would provide a much needed access point west of the Coleman Bridge.

The environmental impacts of additional access should be considered in the siting and design of any new facilities. Future public access points, both public and private, must be sited and developed in accordance with guidelines issued by the VMRC. The Hampton Roads Planning District Commission has also published guidelines for the siting of boat ramps, marinas, canoe/kayak put-ins, and fishing and pedestrian shoreline access facilities, which are contained in a 1997 report titled Regional Shoreline Element of the Comprehensive Plan. Additional siting guidelines for boating access, beach and swimming, access pier and bank fishing, and natural area access are contained in the Chesapeake Bay Program's Chesapeake Bay Area Public Access Technical Assistance Report.

The County is also pursuing improved public access to the water through the Yorktown Revitalization project, including the Riverwalk (a pedestrian facility along Yorktown Beach) and replacement of a public wharf and pier with a new deep-water pier. The new pier will accommodate deeper draft and large

vessels, such as tall ships and dinner cruise boats, without dredging. Facilities will also be provided for the docking of small pleasure boats for day-trippers, and an observation deck for pedestrians is proposed. The revitalization project also includes beach stabilization and nourishment as well as the retrofitting of stormwater facilities to reduce pollutant-loading from the contributing upstream development.

Wetlands

Wetlands are commonly associated with swamps and marshes. Although most often considered to be located in tidal areas, they are also found along the floodplain, in waterways of various types, and in sheltered areas along inter-tidal coasts. Non-tidal wetlands can occur wherever there is, for at least a portion of the growing season, sufficient water to support hydrophytic plants and hydric soils. York County recognizes that wetlands are a unique and important ecosystem performing valuable functions. Specifically, wetlands store and infiltrate floodwaters, provide wildlife habitat and food sources, filter pollutants and sediment from upland runoff, and naturally control shoreline and stream bank erosion.

The management of tidal and non-tidal wetlands in York County involves federal, state and local regulatory entities. A Joint Permit Application (JPA) must be submitted for any work occurring in a wetland area. The application is submitted to the Virginia Marine Resources Commission (VMRC) for distribution to the York County staff and Wetlands Board, the Virginia Department of Environmental Quality (DEQ), and the U.S. Army Corps of Engineers.

Tidal and non-tidal wetlands in York County are shown on the Wetlands Map in the Environment element of this plan. The Goodwin Islands, with approximately 820 acres, comprise the County's largest tidal wetland community. They are owned by the College of William and Mary and are managed as a Natural Estuarine Research Reserve. The Grafton Ponds are non-tidal isolated freshwater wetlands located mostly on property owned by the City of Newport News, which manages the area as a part of its water supply network. Many of the County's wetlands are considered to be unique environmental features and are described by the Virginia Department of Conservation and Recreation in the Natural Areas Inventory of the Lower Peninsula of Virginia. Most of these areas, with the exception of Queen Creek, are in the lower County. Not only protected by state and federal agencies, these areas are protected by the provisions in the County's Environmental Management Area Overlay District. As such, they are subject to special performance standards and afforded the same water quality protection as Chesapeake Bay Preservation Areas.

The Army Corps of Engineers has the authority to regulate activities that occur in tidal and non-tidal wetlands adjacent to waters of the U.S. through the Clean Water Act. "Waters of the U.S." are defined under the "Final Rule for Regulatory Programs for the Corps of Engineers," 33 CFR Part 328. The Department of Environmental Quality is currently developing Draft Regulations to implement the Virginia Nontidal Wetlands Act of 2000. The goal of the Virginia regulatory program is to achieve "no net loss" of wetlands acreage and function. Furthermore, in order to ensure that non-tidal wetlands regulations are enforced, the Zoning and Subdivision Ordinances require notification of regulatory agencies if wetlands exist or are thought to exist on the site.

The York County Wetlands Board has jurisdiction over tidal wetlands and enforces the County's Wetlands Ordinance. Requests for bulkheads, riprap, and beach nourishment are typical of the applications reviewed and issued by the Wetlands Board. The Wetlands Board's jurisdiction ranges from mean low water to 1.5 times the tidal range in vegetated wetlands and from mean low to mean high water in non-vegetated wetlands.

It is the County's goal to protect shoreline property in a cost-effective manner that also preserves and enhances shoreline resources, water quality, wetlands, and wildlife habitat. The Wetlands Board works toward this goal by strongly encouraging applicants to obtain assistance from the Shoreline Erosion Advisory Service, the Virginia Institute of Marine Science, the Virginia Marine Resources Commission, and County staff for shoreline erosion control projects. When shoreline erosion is severe and threatens structures, the Wetlands Board will consider structural shoreline stabilization methods located in wetlands of lesser ecological value. When shoreline erosion is slight to moderate, the Board encourages property owners to implement non-structural measures such as re-grading and re-vegetating. The Wetlands Board encourages coordination of shoreline erosion control projects among properties through

mandatory notification of all adjacent property owners and posting of “Wetlands Permit Pending” signs and special Group Wetlands Permit. On properties with adequate separation between development and the shoreline, the Wetlands Board favors riprap revetments over bulkheads. Maximizing the vegetated buffer in accordance with the provisions of the Chesapeake Bay Preservation Act reduces the need for structural controls, which must be considered only a temporary correction for erosion problems. The goal should be to direct future development and redevelopment away from severely eroding shorelines to areas that can be developed without any adverse impacts on water quality.

The Wetlands Guidelines (VMRC 1993) describes the tidal and non-tidal wetlands communities that exist along the County’s shoreline and classifies them into seventeen community types. The communities are then ranked relative to one another and categorized into five groups for environmental value. Group One communities, for example, merit the highest order of protection because they are most closely associated with fish spawning and habitat, whereas Group Five marshes have only a few values of significance. York County fully recognizes the intrinsic value of all seventeen wetlands community types. When shoreline erosion control issues are being considered, the ranking system can be used as a tool in making decisions. For example, the Wetlands Board, using the Grouping System, would disapprove placement in a *Spartina Patens* (Group One) marsh if it could be moved landward to a *Phragmites* Community (Group Five). Erosion control structures should not be permitted in Group One wetlands if there is any alternative.

The Virginia Wetlands Program Technical Report 99-2 contains the results of a study estimating the impacts of permitted shoreline erosion control structures on vegetated and non-vegetated tidal wetlands. Between 1988 and 1992, approximately 0.43 acre of vegetated wetlands and 1.5 acres of non-vegetated wetlands were impacted by newly permitted shoreline structures.

Shoreline and Streambank Erosion

York County’s shoreline consists of sheltered fine sand beaches, coarse sand beaches, exposed tidal flats, sheltered tidal flats, fringing intertidal marshes, supratidal marshes partially protected by elevation, and freshwater marshes and swamps. There are approximately 2,308 acres of marshes in the County.

Shoreline erosion is a naturally occurring process whereby forces, such as storms and the movement of the tides, cause the boundary between land and water to recede and move inland. Erosion can contribute to the sedimentation and pollution of streams, rivers, and the Chesapeake Bay, resulting in the loss of wildlife habitat and reduced water quality and, when severe, threatening property. The increased rate and volume of stormwater runoff associated with development can accelerate the natural process of erosion.

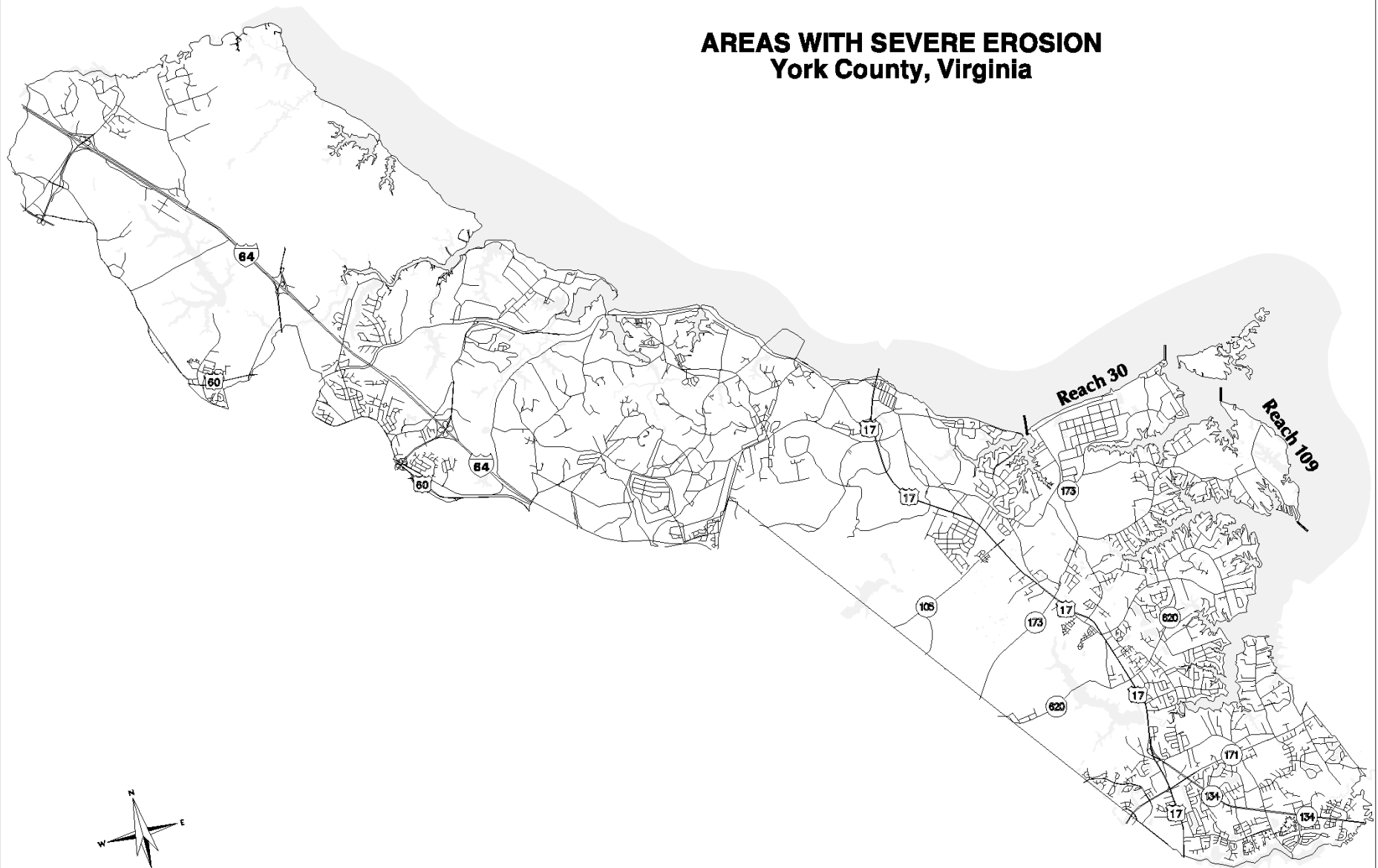
York County encompasses approximately 207 miles of shoreline. The upper County drains via a system of streams and rivers to the southern reach of the York River. This area is characterized by rolling terrain with well-drained soils and elevations up to 100 feet above Mean Sea Level. In isolated areas, moderate to severe erosion has been noted in the VIMS Shoreline Situation Report (1999). The lower County drains via a system of creeks and rivers to the Chesapeake Bay. This section of shoreline includes Back Creek, Chisman Creek, a portion of the Poquoson River, and the western shore of the Chesapeake Bay. Low flat lands with a relatively high water table characterize the topography of the lower County.

Erosion rates are a concise tool to measure the impacts of natural and human effects on the shoreline. They are used to determine appropriate strategies for future development and to determine the most appropriate method to address erosion. The Chesapeake Bay Local Assistance Department suggests classifying eroding shorelines into one of three categories:

1. Slight – less than one foot per year
2. Moderate – one to three feet per year
3. Severe – more than three feet per year

In York County, the western shore of the Chesapeake Bay presents a unique challenge. The two areas with severe erosion are Reach 109 (the Bay Tree Beach area) and Reach 30 (the Sandbox area west of the entrance to the Thorofare). These areas historically experience moderate to severe erosion rates of up to 3.5 feet per year. Although there is residential and industrial (BP Amoco – Reach 30) development along both of these shorelines, the erosion does not appear to be associated with the development. Most of the

AREAS WITH SEVERE EROSION York County, Virginia



— — Extent of Reach

March 07, 2001
Prepared by York County
Computer Support Services

homes were built more than ten years ago and are set back from the shoreline, although some homes along Dandy View Lane and Waterview Road are endangered. The erosion is due in large part to wave action associated with the physical alignment of the shore and prevailing storms. The Wetlands Board has approved several permits along Reach 30 for riprap, breakwaters, and marsh toe stabilization structures. The Bay Tree Beach area is much less developed than the Sandbox area. Most of these properties are not developed because the soils and the high water table preclude on-site sewage disposal systems.

Along the York River the rate of erosion is slight to moderate, but the shoreline at the mouth of the river is vulnerable to the high-energy waves generated by the dominant northeast storms. The Yorktown historic area and recreational beach is along this shoreline. There is an ongoing project to stabilize the beach with a combination of methods, including riprap, breakwaters, beach nourishment, and vegetation.

The type of erosion control structure needed in a given situation is guided in part by the rate of erosion. Revegetation and re-grading are the preferred methods of non-structural erosion control in areas of slight erosion. Bulkheads and riprap are considered when the property is small and the distance between development and the shoreline precludes re-grading. Riprap revetments are typically encouraged over bulkheads as they are more effective at dissipating wave energy, have a longer life, and provide habitat for marine organisms. Evidence of a trend to use riprap rather than bulkheads is noted in the table below.

SUMMARY OF CHANGES IN SHORELINE CONDITIONS FOR YORK COUNTY	
Shoreline Attribute	Change, 1985-1993 (+/-Linear Meters)
Riprap revetment	+659
Bulkhead	-252
Groin field	+176
Breakwater	+619
Groin field bulkhead	+99
Groin field/riprap	+193
Bulkhead/.riprap	-241
Miscellaneous structure	-285
No structures/stable shore	+63
No structures/unstable shore	-150
Source: <u>Shoreline Situation Report</u> , Virginia Institute of Marine Science, 1999	

The amount of bulkhead and bulkhead in conjunction with riprap decreased in York County by approximately 1,620 linear feet and the amount of riprap increased by 2,160 linear feet between 1985 and 1993. Miscellaneous structures and the amount of unstable shoreline also declined. These trends provide positive evidence that environmentally sound shoreline erosion techniques are being implemented.

The Hampton Roads Planning District Commission's Regional Shoreline Element of Comprehensive Plans provides as a general guideline the following ranking of various shoreline erosion control alternatives for different wave climates:

Areas with a Low Erosion Rate (< 1 foot/year)	Areas with a Moderate Erosion Rate (1-3 feet/year)	Areas with a Severe Erosion Rate (>3 feet/year)
1. Vegetative stabilization with/or bank regrading	1. Vegetative stabilization with/or bank regrading	1. Relocation
2. Revetment	2. Beach nourishment	2. Beach nourishment
3. Bulkhead	3. Revetment	3. Revetment
	4. Breakwaters	4. Breakwaters
	5. Groins	5. Groins
	6. Bulkhead	6. Seawall

Although these shoreline erosion control strategies are ranked individually, it is likely that a combination of measures is necessary depending on unique site-specific conditions. This ranking is consistent with the Chesapeake Bay Preservation Act and Virginia Wetlands Guidelines.

In addition to the shoreline areas previously noted, there are streams and ditches in the County showing evidence of deterioration and erosion. Some of the streambank erosion is due to natural causes; however,

some is due to upstream development and conventional ditch maintenance. Many of these streams have been identified in the County's Utilities Strategic Capital Plan for restoration. In 2000 the Board of Supervisors formed a Drainage Advisory Committee whose purpose is to assist County staff in identifying erosion, flooding, and drainage problems and prioritizing areas for improvements. The Drainage Committee joins County staff with the citizens in a collaborative effort, thus providing a forum for public involvement and participation. The Marlbank Ravine Restoration Project is currently underway utilizing a combination of options, including bioengineering, regrading, revegetating, and, where necessary, piping. The County is also beginning the design of a Wetlands Interpretive Center and Stream Restoration project in the Lackey area. The Lackey project promotes community involvement by partnering with the Boy Scouts and Master Gardeners and Tree Stewards.

Stream bank erosion, like shoreline erosion, is a natural process, with many of the same negative impacts. Natural factors that contribute to stream bank erosion, are steep slopes and highly erodible soils. Development on steep slopes greater than 15% is regulated through the Zoning and Subdivision Ordinances to ensure the integrity of slopes and waterways.

Stream bank erosion is more often directly related to land use and development than is shoreline erosion. York County limits stormwater runoff from developed sites to pre-development rates through the strict application of the Erosion and Sediment Control regulations, which require that properties and waterways downstream of development be protected from sediment deposition, erosion, and damage caused by increases of volume, velocity, and peak flow rates of stormwater runoff for certain storm events. Inevitably, however, the volume and duration of stormwater runoff are increased with increased amounts of impervious area. Pursuant to the Erosion and Sediment Control Ordinance, the County requests calculations proving downstream adequacy. When possible, stream banks will be restored to a natural state using bioengineering options with contiguous floodways. Piping will be used as a measure of last resort. In this manner, stormwater management, erosion control, non-point source pollutant, and habitat creation goals will be achieved. The reduction and minimization of impervious surfaces is a major issue, especially with regard to streambank erosion. Low-Impact Development and conservation design, as methods of retaining pre-development site hydrology, are extremely valuable tools that will reduce streambank erosion and protect water quality. Based on this information, shoreline and streambank erosion are significant issues for York County. The Wetlands Board is doing an admirable job of preventing shoreline erosion while limiting hardening of the County's tidal shoreline. The County has begun a streambank restoration project at Charles Brown Park in Lackey which will serve as a pilot program for bioengineering techniques. In addition, the Drainage Advisory Committee and the County's Department of Environmental and Development Services are reviewing erosion and flooding problems to prioritize streambanks not addressed in the Capital Plan. The trend in the County is to favor streambank restoration and bioengineering over the conventional piping and bank hardening solutions.

Flood Zones

York County is in a tidal area with some areas in low and relatively flat terrain. Coastal flooding is a potential hazard, affecting approximately 7,000 acres of land close to coastal streams and creeks. The flat topography of the Seaford and Dandy areas results in flooding during major storms. Through the National Flood Insurance Program (NFIP), property owners can obtain flood insurance through the private insurance industry at a reasonable cost. Communities participating in the NFIP, such as York County, have established plans and adopted regulations to lessen potential losses from flood damage. Regulations must be consistent with the NFIP. These regulations apply to those portions of a locality which are within the 100-year floodplain, which includes those areas subject to inundation by the 100-Year Flood (i.e., a flood level with at least a 1% chance of being equaled or exceeded in any year). The Flood Insurance Rate Map shows those areas of the County identified by the Federal Emergency Management Agency (FEMA) as being located in a flood hazard area. It is broken down into flood zone areas based on degree of risk.

Communities participating in the NFIP require newly constructed and substantially improved residential structures in the special flood hazard areas to have the lowest floor elevated above "the base flood level." Non-residential structures must either elevate the lowest floor or design the structure to be watertight. In an effort to reduce losses even further, FEMA has recently developed a voluntary program known as the "Community Rating System" by which communities can augment their existing floodplain protection

programs in ways that may reduce loss-payouts should a flood event occur. In return for implementing this, the Federal Insurance Administrator can grant small general reductions in premium rates within the community.

WASTE MANAGEMENT

Over the past six years York County's waste management program has changed dramatically in both concept and approach. During this period the following changes have been implemented:

- A roadside trash pickup program has been initiated for all single-family detached homes through a contract with a private waste operator; the County maintains operational oversight of the program.
- The operating landfill has been closed in conformity with federal and state standards.
- A waste transfer station was constructed by the County and is leased to a private operator to receive and transfer waste to over the-road-vehicles for transfer to federally and state approved disposal sites outside of York County. This station receives wastes from the County's roadside collection program as well as drop-off wastes by both citizens and commercial users. Citizens participating in the curbside program dispose waste at no cost while all others pay for this service. The operator of the station may also use the station to handle non-program waste collected by its vehicles for the payment of a tonnage fee.
- A long-term contract was entered into with a private waste contractor to dispose of all waste collected by the County at one of several sites approved by the County.
- The County entered into a partnership with the Cities of Hampton and Poquoson to operate a 25,000-ton/year yard waste facility under the direction of the Virginia Peninsulas Public Service Authority (VPPSA). This facility processes leaves, grass, and woody waste into mulch and compost which is sold or is available without additional cost to the participating jurisdictions.
- The County began providing heavy yard waste pickup for a modest fee.
- The County has expanded its drop-off recycling program to include waste oil, antifreeze, batteries, paper and tires.
- A new recycling contract was negotiated which included the handling of mixed paper for the first time. Since the addition of mixed paper, the tonnage of household material recycled has increased and the per household tonnage of landfill disposed waste has decreased.
- In 1997 the County initiated a household chemical waste collection program operated by VPPSA, which includes most of the wastes that cannot be disposed of in landfills. As an adjunct to this program, advice is made available on how properly to dispose of waste that cannot be handled under this program.
- The Board of Supervisors approved a roadside leaf pickup program, which was initiated during the 1997-98 leaf season. Despite some initial concerns the program was successful and the amount of leaves delivered to the Compost Facility doubled during Fiscal Year 1997-98.
- During 1998 the County was a leader in working with the Virginia Department of Environmental Quality (DEQ) through VPPSA to establish a waste tire amnesty program. Through July 1998, 5,000 tires were processed from York County alone. While this is a grant program it is hoped that its success will encourage DEQ to continue its funding in the future.
- The County has joined the Environmental Protection Agency's Wa\$teWi\$e program to foster the use of products made from recycled materials.
- Since May of 1997, York County has participated in the Collection of Household Chemicals Program. The program provides residents the opportunity to dispose of a variety of chemicals in an environmentally safe manner. The chemicals accepted include paints, gasoline, brake fluid, pesticides, drain cleaners, etc. which might otherwise be disposed of via the storm drainage system or dumped on the ground to possibly contaminate groundwater. The Collection Program is available every other month at three locations serving five communities. Since its inception, more than 100,000 pounds of chemicals have been collected and disposed of and over 2,300 York County residents have participated in the program.

York County has continued to market its recycling program in educational, household and the commercial/industrial sectors, and the success of these programs is demonstrated by the fact that in 1997 York County homes and businesses diverted approximately 42% of their municipal solid waste (including aluminum and other metals, auto bodies, newspaper, office paper, corrugated cardboard, plastic, glass,

leaves and yard debris, and motor oil) from the County's waste stream, well above the State-mandated goal of 25% by 1993. When adjusted to include supplemental recycling materials – primarily coal ash but also tires, batteries, anti-freeze, etc. – the recycling rate rises to 78%. Contracting waste services out while maintaining operational control has resulted in savings to County citizens while significantly improving the environment. A good example of this is that before the County took over responsibility for the roadside trash pickup there were often waste containers on the street three or four days a week. In most of the County the containers are out only one day per week.

NOISE

Though not generally acknowledged as a form of environmental pollution, noise has become a growing concern with the addition of new highways and increasing air and automotive traffic. In 1972, congress passed the Noise Control Act to establish noise emissions standards for new products. The EPA coordinates federal noise research programs and determines whether noise emission standards protect the public health. Although state and local governments do not set standards, noise can be controlled through local regulations and licensing requirements. York County currently regulates noise in public areas and excessive noise from radios, horns, animals, vehicles, and performances.

Aircraft operations at Newport News/Williamsburg International Airport and Langley Air Force Base are the principal sources of objectionable noise in the County. Noise contours indicate the levels of aircraft noise in areas close to airport runways and are based on the average day-night sound level (abbreviated as DNL and symbolized mathematically as Ldn) observed in these areas. Ldn is the accepted unit for determining the extent of compatibility of noise-generating activities with different types of development. For residential development, according to the Department of Housing and Urban Development, an Ldn greater than 65 is considered to represent unacceptable level of noise exposure. Most of the land surrounding the airport in York County is undeveloped; however, some residential areas – including Meadowview Drive, Carraway Terrace, and areas of Lakeside Forest, Harwood Heights, Burts Road and Oriana Road – are within the 65 noise contour, and parts of the Kentucky Farms subdivision are within the 70 noise contour. These noise contours are likely to shrink, however, as older, louder jet engines are phased out and replaced as mandated by the Federal Aviation Administration. Moreover, according to the Airport Master Plan adopted in May 1997, planned runway extensions will actually reduce noise exposure because of the shift in the aircraft mix from the louder military aircraft to the quieter commercial jets.

The noise contours for Langley Air Force Base indicate that the only residentially developed property in the County where the base's aircraft operations generate unacceptable noise levels (i.e., 65 Ldn) is in Bethel Manor, which is Langley Air Force Base housing.

APPENDIX E: HOUSING

EXISTING CONDITIONS

Housing Inventory

There are approximately 20,000 housing units in York County, roughly 1,500 of which are military units located in Bethel Manor, the Naval Weapons Station, Camp Peary, Cheatham Annex, and the U.S. Coast Guard Reserve Training Center. Single-family detached homes continue to dominate the landscape, representing 70% of the housing stock. However, there are more than 5,000 townhouses, duplexes, apartments, and condominiums in the County, a quarter of which are on-base military units. Over a third of the new housing built since 1990 has been of the single-family attached and multi-family variety. Other types of housing in the County include mobile homes and accessory apartments.

HOUSING TYPE	OFF-BASE UNITS	ON-BASE UNITS	TOTAL UNITS
Single-Family Detached	14,113	185	14,298
Single-Family Attached (townhouses and duplexes)	2,073	820	2,893
Multi-Family (rental and condominium apartments)	2,038	476	2,514
Mobile Homes	554	18	572
Other	104	8	112
TOTAL	18,882	1,507	20,389

Table 18

Housing Stock Quality

Because of the high rate of housing construction in recent years, York County's housing stock is relatively young and of good quality. Slightly over one-fifth of the housing units in the County were built within the past six years and 41% were built within the past sixteen years. There are also approximately 3,305 housing units (17% of the County's housing stock) that pre-date 1960 and are almost 40 years old. As these dwellings age, it is possible that some will need rehabilitation. It should be noted that only 0.6% of the County's housing stock (86 units) is considered "substandard" by the US Census definitions because these units lack complete plumbing facilities.

Because of the high rate of housing construction in recent years, adding over 5100 units since 1990, York County's housing stock is relatively young and of good quality. One quarter of the housing units in the County were built within the past eight years and 44% were built within the past sixteen years. On average, homes and residential lots in the County are generally larger than in surrounding jurisdictions. According to the 1990 census, the average number of rooms per housing unit in the County was 6.5, which exceeds the averages for the metropolitan area and the state in this measure of housing quality.

Residential densities (housing units per acre) in York County are generally lower than in surrounding areas. Minimum lot sizes for conventional subdivisions, as set forth in the Zoning Ordinance for residential zoning districts, range from 13,500 square feet (slightly over three units per acre) to an acre. In areas where public utilities are not available, the minimum lot size increases to 1.5 or 2 acres.

The age, size (both home size and lot size), and quality of the housing stock contribute to the relatively high residential property values in the County. In 1990, York led the entire metropolitan area with a median house value of \$121,600.

There are an average of 6.5 rooms per housing unit in York. The County exceeds the averages for the metropolitan area (5.6) and the state (5.8) in this measure of housing quality. Given the size and age of York's housing stock, it is not surprising, therefore, that the value of residential property in the County is generally higher than elsewhere in the region.

Occupancy

The vacancy rate in a given housing market is the proportion of the active housing stock available to prospective tenants or homebuyers. In an ideal market, some housing units should be vacant to allow adequate opportunities for households seeking new residences. Moreover, to operate efficiently, vacancy rates must run a fine line between an overbuilt market (usually considered above 7% vacancy) and an underbuilt market (below 3% is normally considered too low). The implications of an overbuilt market include mounting mortgage risks for lenders, investors, and developers. An underbuilt market tends to restrict residential mobility and increase housing prices as people bid up the price of available units. According to the 1990 census, the County's 1990 vacancy rate was 5.3%.

Variety

Different types of households have distinct needs and drive the demand for a diverse housing stock. Household age, size, structure, and income are key variables in determining housing needs. Young singles who are just starting their careers are likely to live in apartments. Townhouse and duplexes are particularly attractive to both young couples with limited buying power and lesser space needs, and older couples—sometimes referred to as “empty nesters”—whose children have moved away. Middle-age couples with children are typically attracted to single-family detached housing with large yards and plenty of room. It is important to have an appropriate housing stock to meet the needs of a diverse and constantly changing population. A long-term perspective prevents planning and development decisions from being based solely on short-term market trends.

The term "manufactured home" has come to replace the term "mobile home." Manufactured home refers to housing units that are manufactured in a factory but require some assembly and finishing at the construction site, and meet Uniform Building Code Standards. Manufactured homes represent approximately 3% of the County's housing stock. This share will likely decline through the 1990s and into the first decade of the 21st Century. County zoning regulations limit additional placements to locations within either manufactured home parks or designated manufactured home subdivisions. There are approximately 25-30 major manufactured home parks in York County. In addition, Whispering Winds in Tabb has been developed as a manufactured home subdivision.

York County has one of the highest rates of home ownership on the Peninsula. However, there is still a need for rental housing. In 1990, rental housing constituted 28% of the County's housing stock. Over a third of this housing is military housing. Rental housing represents 20% of the **private** housing market. The rental market makes housing available for people who either cannot afford a home of their own or choose to rent. As shown in **Table 19**, there are several apartment complexes in the County, but rental housing is not limited to apartments. In 1990, 29% of the renter-occupied units were single-family detached homes.

APARTMENT COMPLEX	LOCATION	NUMBER OF UNITS
Country Club Apartments	Upper County (Route 143)	100
Grafton Station Apartments	Grafton	396
Four Seasons Apartments	Tabb (Route 134)	320
Pines of York Apartments	Tabb (Route 134)	248
Rivermeade Apartments	Goosley Road/Yorktown	80
York Pointe Apartments	Tabb (Route 134)	202
Yorkshire Townhouses	Lackey	130
Yorktown Square I and II	Goosley Road/Yorktown	116
Yorktown Village Apartments	Yorktown	89

Table 19

Affordability

The concept of affordability is based on the general rule that no household should have to spend more than 30% of its annual gross income on housing. According to the 1990 census, the proportion of households in York County for whom housing was unaffordable was 20%. This was slightly below the average for both the State (21%) and the metropolitan area (26%). Almost a third of the County households for which housing was unaffordable (30%) had annual gross incomes below \$20,000. Housing was unaffordable to over half (52%) of the households in this income bracket.

In 1996, the average sale price of a new single-family detached home in York County was approximately \$186,000. While this is beyond the reach of many people, there are a variety of more affordable alternatives – such as townhouses, duplexes, condominiums, and the resale market – that help to make home ownership possible for the vast majority of County households. When these alternatives are included, the average sale price for a home in the County in 1996 was \$147,000.

Table 20 measures housing affordability by combining income data with home sale prices. Table 2 divides York County households into income deciles based on projections of 1996 median household income published by the Weldon Cooper Center for Public Service. Each decile represents one tenth of the households in the County. For example, in 1996, 10% of the households in the County had incomes below \$17,499, while another 10% had incomes between \$17,499 and \$27,819, and so on. The third column in the table gives an estimate of the maximum affordable house price (based on 30% of income) for each income decile. These estimates are based on a 30-year mortgage with a 10% down payment and an interest rate of 8.5%. The fourth column gives the percentage of 1996 home sales – both new and resales – in each price range. The fifth column gives the **total** percentage of homes sold in 1996 that were affordable for each income decile. For example, households with annual incomes between \$72,577 and \$85,028 can afford to pay \$210,320 to \$247,100 for a home. Slightly over 7% of homes sold in 1996 were in this price range. A total of 94.9% of all homes sold in the County were affordable to these households.

INCOME DECILE	HOUSEHOLD INCOME AT UPPER LEVEL OF DECILE	MAXIMUM AFFORDABLE HOME PRICE	PERCENTAGE OF HOMES SOLD IN RANGE OF AFFORDABILITY	CUMULATIVE PERCENTAGE OF AFFORDABLE HOMES SOLD
1 st	\$17,499	\$47,442	0.4%	0.4%
2 nd	\$27,819	\$77,904	10.1%	10.4%
3 rd	\$36,083	\$102,444	19.5%	29.9%
4 th	\$44,492	\$127,329	11.5%	41.4%
5 th	\$53,146	\$152,896	13.3%	54.7%
6 th	\$61,737	\$178,250	17.1%	71.8%
7 th	\$72,577	\$210,320	15.8%	87.6%
8 th	\$85,028	\$247,100	7.3%	94.9%
9 th	\$105,918	\$309,155	4.0%	98.9%
10 th		> \$309,155	1.1%	100.0%
TOTAL			100.0%	

Table 20

For households earning more than \$27,819 there is an abundance of affordable housing. Table 2 shows, there is sufficient housing available at almost every level income, with the exception of the lowest income decile. Without some form of subsidy, in today's market it is unlikely that new housing can be built in this price range. It is not practical to provide home-ownership possibilities for every income level. York County's housing affordability problem is primarily an income problem.

There are a variety of Federal and state programs administered by the County that are intended to help lower income residents meet their housing needs (see **Table 21**). These include rental subsidies and, housing rehabilitation loans and grants. Numerous other general and neighborhood housing programs are available to provide housing assistance to low-income households. The Housing and Neighborhood Revitalization Division of the County's Department of Community Services is the local agency charged with administering these programs.

PROGRAM NAME	PROGRAM DESCRIPTION
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PROGRAM NAME	PROGRAM DESCRIPTION
Virginia Fair Housing Program	Ensures compliance with Virginia fair housing laws.
Virginia Low Income Weatherization Program	Assists low-income households by helping them to reduce fuel bills and to increase home comfort by making homes more energy-efficient.
Virginia Emergency Home Repair Grant Programs	Provides grants of up to \$500 per housing unit to make repairs to properties that present an immediate threat to the health and safety of its occupants. Grant funds for up to \$1,000 may be used to make accessibility adaptation for the physically disabled.
Virginia Local Housing Rehabilitation Program	Makes loan and grant funds available for general improvement and energy-related improvements.
Virginia Residential Shoreline Sanitation Program	Provides grants to Chesapeake Bay areas localities for correcting improper wastewater discharge into coastal waters from housing units occupied by low-income households. Grant of up to \$10,000 per house are available to repair or replace septic systems or install indoor plumbing.
Virginia Rental Rehabilitation Program	Assists in the moderate rehabilitation of low-income rental housing units by providing loans or grants for up to 50% of rehabilitation costs.
Federal Rental Assistance Program	Payments are made to owners of Farmers Home Administration-financed rental projects to reduce the rents (including utilities) paid by low-income tenants to no more than 30% of their incomes.
Federal Weatherization Assistance Program	Pays for installation of cost-effective weatherization measures--such as caulking and weatherstripping, storm windows, attic insulation, and heating system improvements—to reduce high heating and cooling fuel costs of low-income families, particularly the elderly and the disabled.
Federal Section 8: Lower Income Rental Assistance	Assists low-income families in obtaining decent, safe, and sanitary rental housing. There are three major programs under Section 8. Under the <u>Existing Housing Certificate Program</u> and the new <u>Housing Voucher Program</u> , private owners receive the difference between what tenants can afford (up to 30% of adjusted income) and the fair market rent. Vouchers differ from certificates in that they are tied to the tenant rather than the units and provide tenant greater freedom of choice in selecting housing. The <u>Moderate Rehabilitation Program</u> provides subsidies to owners, normally higher than those provided under Certificates and Vouchers, to compensate costs incurred in rehabilitation units.
Federal Community Development Block Grants (CDBG)	Provides grants for community development activities directed toward neighborhood revitalization, economic development, and improved community facilities. CDBG activities must either benefit low- and moderate-income persons, aid in the prevention or elimination of slums, or address other community development needs that present a serious and immediate threat to the health and welfare of the community.

Table 21

It should also be noted that the Planned Development regulations in the York County Zoning Ordinance include *Affordable Housing Incentive Provisions* that are intended to encourage more moderately priced single-family detached housing. This is accomplished through the reduction or elimination of otherwise applicable planned development open space requirements for lots of at least 7,500 square feet. In exchange, these provisions require either modular dwelling units or other approved single-family detached dwelling units and establish a maximum unit size, all with the objective of promoting affordability. Several planned developments have been approved by the Board of Supervisors under the Affordable Housing Incentive Provisions. Pursuant to §15.1-491.8 and 15.1-491.9 of the Code of Virginia, York County, may, by amendment to the Zoning Ordinance, provide for an affordable housing dwelling unit program which addresses housing needs, promotes a full range of housing choices, and encourages the construction and continued existence of moderately priced housing. This is done by providing for optional increases in density in order to reduce land costs for such moderately priced housing. At this point, there is sufficient moderately priced housing to meet the needs of all but the lowest-income County residents.

CHANGES SINCE 1991

Several important changes in both the amount and type of housing in the County have occurred since the adoption of the Comprehensive Plan in 1991. The size of the housing stock has increased by 27%, with 4,140 new units built since 1991. Residential development in York County is primarily single-family

detached, but significant strides toward diversification of the housing stock have been made in recent years. The introduction of new housing alternatives, such as townhouses, duplexes, and condominiums, has made home ownership available to households whose options previously had been extremely limited, or who perhaps had been shut out of the housing market entirely. In some instances this variety has translated into increased affordability.

YORK COUNTY HOUSING CONSTRUCTION, 1991-1998									
TYPE OF HOUSING	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
Single-Family Detached	391	653	464	454	369	328	297	120	3,076
Single-Family Attached	104	232	209	237	196	148	119	78	1,323
Multi-Family	56	90	38	87	40	11	0	0	322
TOTAL	551	975	711	778	605	487	416	198	4,721
<i>Note: 1998 data for January through July only.</i>									
<i>Source: York County Certificate of Occupancy data</i>									

Table 22

There have also been significant changes in housing policy as a direct result of the 1991 Comprehensive Plan. In 1995, the Board of Supervisors adopted a new Zoning Ordinance and Map in accordance with the Comprehensive Plan. These actions were taken in response to concerns about rapid growth that began to emerge in the 1980s. Accordingly, both the supply of residential land and the allowable residential densities were reduced. The decline in densities reduced from 45,300 to 31,500 the total number of housing units that could be built in the County, thereby reducing the maximum build-out population – the maximum estimated future population that would occur if all available residential land were developed at its maximum allowable density – from 135,000 to approximately 87,000 residents. Although it is still relatively high, the rate of housing construction has indeed slowed since the adoption of the Zoning Ordinance.

APPENDIX F: TRANSPORTATION

EXISTING CONDITIONS

ROADWAYS

Roads represent the largest component of the County's transportation network. Largely because of a topography typified by a large number of peninsulas and inlets in the lower County and pronounced ridgelines which fall off into steep ravines in the upper County, combined with a generally linear alignment along the banks of the York River, the roadway network has developed with a large number of collector roads feeding relatively few arterial roads. **Table 23** describes the general relationship between roadway classification and the state road system designation, although there is not always a perfect correlation. It is often also possible to think of such roads in terms of their traffic volumes, with the most traffic generally found on freeways and the least on subdivision or access streets. As traffic volumes increase, the level and degree of roadway design must also increase. Frequently, this means building roads with more and wider lanes, better shoulders, access controls, and increased speed limits. These features can increase both the safety and capacity of the roadway, but they also increase the cost of the road and can create significant barriers to non-automotive modes of travel.

Functional Classification	State Road System	Route Numbers
Freeway	Interstate Highways	
Arterial	Primary System	less than 600
Collector	Older Secondary System	600's and 700's
Subdivision Street	Newer Secondary System	800 or greater

Table 23

It is often also possible to think of such roads in terms of their traffic volumes, with the most traffic generally found on freeways and the least on subdivision or access streets. As traffic volumes increase, the level and degree of roadway design must also increase. Frequently, this means building roads with more and wider lanes, better shoulders, access controls, and increased speed limits. All of these things can increase both the safety and capacity of the roadway. They also increase the cost of the road and create significant barriers to modes other than automobile travel.

As in all Virginia counties except Arlington and Henrico, most of the roads⁴ in York County are maintained not by the County but by the Virginia Department of Transportation (VDOT), which is responsible for almost 300 miles of roadway in the County. Most of these are secondary roads (225 miles), but there are also 48.4 and 11.3 miles of primary and interstate highways

For a variety of reasons, the automobile is the travel mode of choice for most Americans, and York County residents are no exception. In fact, York County is more dependent on the single-occupant vehicle (SOV) than most neighboring localities, and this dependence is growing. In 1980, for example, 66% of the County's commuters drove to work alone, while 25% rode in carpools. By 1990, the percentage of workers driving alone to work had risen to 83%, while the proportion of carpoolers had fallen to 13%. In addition, whereas 1.9% of commuters in 1980 used some form of public transportation, only seven-tenths of one percent did so in 1990. Finally, the percentage of people who walked to work declined from 6% in 1980 to 2.5% in 1990.

The growing prevalence of the single-occupant vehicle, combined with high residential and commercial growth within both the County and the region, has led to increased traffic congestion, which is a function of roadway capacity and traffic volumes. Average traffic volumes on most roads in the County have risen over the past decade with the greatest growth occurring on the Interstate system. From 1985 to 1994, the relative density of traffic on interstate and primary roads increased over 50%, from approximately 16,100 in 1985 to over 25,000 daily vehicles per mile of road. York ranks seventh among the state's 95 counties in relative traffic density.

⁴ Excluding private streets and Federal roads, such as the Colonial Parkway and roads located within military bases.

An accepted measure of traffic congestion is the Volume/Capacity Ratio, which is the ratio of traffic volume to roadway capacity. When volumes exceed capacity, there are unacceptable travel delays along the roadway and often side streets as well. These delays increase air pollution, waste energy, and cause driver frustration which often manifests itself in attempts to find short cuts, usually along roads not designed for through traffic. The higher the volume/capacity ratio, the greater the need for road improvements.

YORK COUNTY COMMUTERS BY MODE OF TRAVEL: 1980 AND 1990						
MODE OF TRAVEL TO WORK	1980		1990			
	Number	Percent	Number	Percent		
Drive alone	10,986	65.5%	17,488	83.4%		
Carpool	3,969	24.7%	2,640	12.6%		
Bus	287	1.7%	118	0.6%		

PENINSULA COMMUTERS BY MODE OF TRAVEL: 1990						
MODE OF TRAVEL TO WORK	Hampton	James City County	Newport News	Poquo-son	Williams-burg	York County
Drive alone	79.3%	80.2%	74.9%	84.1%	55.9%	83.4%
Carpool	14.3%	16.0%	15.3%	12.7%	9.7%	12.6%
Bus	2.3%	0.8%	2.8%	0.3%	1.0%	0.6%
Other public transportation (including taxicab)	0.2%	0.2%	.2%	0.1%	0.9%	0.1%
Walk	2.8%	1.7%	4.9%	1.0%	27.6%	2.5%
Other means	1.3%	1.1%	1.9%	1.8%	4.9%	0.8%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: U.S. Census Bureau

Table 25

Although traffic congestion has increased significantly, traffic accidents have not. More important than the number of accidents is the accident *rate*, which includes not just accidents but also traffic volumes. This is important because a high number of accidents along a given roadway may be merely a reflection of the high traffic volumes rather than a safety deficiency. The measure used by both the Virginia Department of Transportation (VDOT) and the Virginia Department of Motor Vehicles (DMV) is the accident rate per 100 million vehicle miles of travel.

For most roadways in the County the accident rate (accidents per 100 million vehicle miles of travel) has fallen during the past decade because traffic volumes are increasing faster than the number of traffic accidents. Over the past decade, accident rates have fallen on the Primary and Secondary Systems in the County but have risen slightly on the Interstate System.

Accident trends are closely monitored by the York County Transportation Safety Commission, which is an advisory body to the Board of Supervisors composed of County citizens and staff – including County Administration, the Sheriff's Office, the Department of Fire and Life Safety, and the School Division – who have an interest in transportation safety. Also represented on the Commission are various other agencies, including VDOT, the Coast Guard, the National Park Service, the Virginia Department of Motor Vehicles, and the Virginia State Police. One activity of the Commission, which developed the County's Transportation Safety Plan in 1992, is to analyze accident trends to identify hazardous locations which can then be emphasized – either through education, enforcement, or engineering, or some combination thereof.

Roadway *capacity* is derived from a mathematical relationship between roadway geometrics (lane width, horizontal and vertical curvature, shoulder type and width, etc.) surface treatment, access type and spacing, intersection location and type of control (stop sign, yield sign, traffic signal, etc.), and the general characteristics of travel (peak hours, number of heavy vehicles in the traffic stream, the number and percentage of left turns at intersections, etc.). All else being equal, the capacity of a roadway is defined by its conflict points which include access driveways and intersections--the fewer the conflict points, the greater the capacity of the roadway.

Taken together, safety deficiencies and capacity deficiencies are strong indicators of a need for road improvements. Improvements can be classified in four basic types:

- New Facilities,
- Spot Improvements,
- New Through Lanes, and
- Transportation System Management (TSM) Measures.

New facilities remove traffic from existing roadways; new lanes add capacity and enhance safety; spot improvements include turn lanes, improved roadway geometrics, signals, pavement dividers or markings, and other physical improvements short of adding through lanes; while TSM measures usually focus on peak hour demand reductions by encouraging alternative travel modes or off-peak travel times.

So that capacity and safety improvements can be considered together, a mathematical model has been developed to provide guidance for assigning relative priorities to various road improvements. A summarized version of this model is shown in table. This model does not consider intangible items such as community sentiment, site-specific access needs, political preferences, and other special circumstances that cannot be quantified. The methodology establishes three levels of relative priority based on how the needs compare with each other. The intent of the model is not to prioritize specific road improvements but rather to provide additional detailed information about the roadway segments modeled to provide information to decision-makers to assist in establishing roadway improvement and funding priorities. This information appears in **Tables 26** and **27**.

INTERSTATE AND PRIMARY ROAD PLANNING DATA						
ROUTE #	ROUTE NAME	1995 V/C RATIO	2015 V/C RATIO	1990 ACCIDENT RATE	WEIGHTED SCORE	RELATIVE PRIORITY
17	GEORGE WASHINGTON MEMORIAL HIGHWAY					
	Newport News to Victory Blvd	143%	233%	93	14	B
	Victory Blvd to Hampton Highway	116%	256%	93	14	B
	Hampton Highway to Route 614	104%	153%	197	15	A
	Route 714 to Lakeside Drive	155%	276%	197	18	A
	Lakeside Drive to Dare Road	159%	245%	197	18	A
	Dare Road to Wolf Trap Road	98%	161%	197	13	B
	Wolf Trap Road to Denbigh Blvd	119%	146%	197	14	B
	Denbigh Blvd to Ft. Eustis Blvd	128%	213%	181	17	A
	Ft. Eustis Blvd. to Cook Road	159%	383%	181	19	A
	Cook Road to Goosley Road	100%	210%	138	13	B
	Goosley Road to Main Street	49%	98%	138	8	B
	Main Street to Gloucester	217%	428%	373	22	A
60	BYPASS ROAD					
	Williamsburg to Waller Mill Rd.	65%	166%	233	14	B
	Waller Mill Road to Rt. 132	95%	117%	233	13	B
	Rt. 132 to Williamsburg	80%	118%	233	13	B
60	POCAHONTAS TRAIL					
	JCC @ Rt. 199 to .71mw JCC	44%	108%	205	11	B
	.71mw JCC to JCC	95%	298%	205	15	A
64	I-64					
	JCC to Newman Road	65%	156%	49	10	B
	Newman Road to Merrimac Trail	65%	158%	55	11	B
64	Merrimac Trail to Queens Creek	104%	161%	66	13	B
	Queens Creek to Rt. 199	104%	161%	66	13	B
	Rt. 199 to Grove Cross	86%	158%	60	11	B
	Grove Cross to James City County	86%	188%	12	10	B
105	FORT EUSTIS BOULEVARD					
	Newport News to Rte 17	135%	198%	60	12	B
132	UNNAMED					
	Williamsburg to Bypass Road	82%	121%	31	9	B
	Bypass Road Merrimac Trail	95%	117%	31	9	B
134	HAMPTON HIGHWAY					
	Rte 17 to Victory Boulevard	93%	160%	243	15	A
	Victory Boulevard to Tide Mill Road	143%	256%	243	18	A

INTERSTATE AND PRIMARY ROAD PLANNING DATA						
ROUTE #	ROUTE NAME	1995 V/C RATIO	2015 V/C RATIO	1990 ACCIDENT RATE	WEIGHTED SCORE	RELATIVE PRIORITY
	Tide Mill Road to Hampton	138%	203%	243	18	A
143	MERRIMAC TRAIL					
	James City County to I-64 Interchange	30%	68%	197	9	B
	I-64 Interchange to Tam-O-Shanter Blvd.	25%	56%	197	9	B
	Tam-O-Shanter Blvd. to Route 199	30%	48%	197	8	B
	Route 199 to James City County	32%	46%	305	9	B
	James City County to Second Street	102%	148%	341	15	A
	Second Street to Williamsburg	129%	180%	489	16	A
	Williamsburg to Route 132	14%	18%	578	10	B
	Route 132 to I-64	32%	39%	675	13	B
171	VICTORY BOULEVARD					
	Newport News to RTE 17	25%	63%		6	C
	RTE 17 to Hampton Highway	120%	275%	448	18	A
	Hampton Highway to Big Bethel Road	143%	256%	263	17	A
	Big Bethel Road to Carys Chapel Road	123%	260%	263	17	A
	Carys Chapel Road to Poquoson	62%	109%	263	13	B
173	DENBIGH BOULEVARD					
	Newport News to Denbigh/Snidow Conn.	86%	182%	173	12	B
	Denbigh/Snidow Conn. to RTE 17	126%	189%	173	14	B
173	GOODWIN NECK ROAD					
	RTE 17 to Wolftrap Road	107%	141%	111	12	B
	Wolftrap Road to Seaford Road	51%	99%	111	9	B
	Seaford Road to Back Creek Road	46%	75%	111	7	C
199	UNNAMED					
	James City County to Merrimac Trail	43%	61%	59	6	C
	Merrimac Trail to I-64	33%	61%	59	6	C
	I-64 to Penniman Road	14%	24%	419	9	B
238	OLD WILLIAMSBURG ROAD					
	Newport News to Baptist Road	97%	110%	257	13	B
	Baptist Road to Water Street	97%	110%	257	9	B
238	GOOSLEY ROAD					
	Water Street to Crawford Road	64%	88%	257	8	B
	Crawford Road to RTE 17	100%	210%	257	11	B
	Rte 17 to Cook Road	84%	228%	257	11	B
238	COOK ROAD					
	Goosley Road to Moore House Road	57%	107%	257	9	B
238	MOORE HOUSE ROAD					
	Ballard Street to Coast Guard Gate	51%	91%	207	11	B
Sources: Virginia Department of Transportation, Hampton Roads Planning District Commission, and York County Planning Division						

Table 26

SECONDARY ROAD PLANNING DATA						
ROUTE #	ROUTE NAME	1995 V/C RATIO	2015 V/C RATIO	1990 ACCIDENT RATE	WEIGHTED SCORE	RELATIVE PRIORITY
600	BIG BETHEL ROAD					
	Hampton to Hampton Highway	138%	203%	455	20	A
	Hampton Highway to Victory Boulevard	92%	203%	455	18	A
	Victory Boulevard to Yorktown Road	92%	203%	455	18	A
603	MOORETOWN ROAD					
	.73 Mile South Airport Rd. to Airport Rd	2%	99%	230	10	B
	Airport Rd. to relocated Mooretown Rd.	12%	83%	230	10	B
604	BARLOW ROAD					
	Newman Road to Frontage Rd. 137	31%	87%	215	9	B
620	ORIANA ROAD					
	Newport News to RTE 17	142%	266%	180	15	A

SECONDARY ROAD PLANNING DATA						
ROUTE #	ROUTE NAME	1995 V/C RATIO	2015 V/C RATIO	1990 ACCIDENT RATE	WEIGHTED SCORE	RELATIVE PRIORITY
614	SHOWALTER ROAD					
	Rte 17 to Lakeside Drive	39%	151%	176	9	B
620	LAKESIDE DRIVE					
	Rte 17 to Showalter Road	159%	245%	235	17	A
	Showalter Road to Dare Road	83%	123%	235	11	B
621	DARE ROAD					
	Rte 17 to Railway Road	87%	123%	315	13	B
622	SEAFORD ROAD					
	Goodwin Neck Road to Back Creek Road	57%	89%	194	11	B
630	WOLF TRAP ROAD					
	Rte 17 to Denhigh Boulevard	99%	126%	90	9	B
634	OLD YORK HAMPTON HIGHWAY					
	Rte 17 to Battle Road	31%	48%	155	7	C
	Battle Road to Wormley Creek Drive	31%	48%	155	7	C
	Wormley Creek Dr. to Cook Road	10%	34%	155	7	C
641	PENNIMAN ROAD					
	Williamsburg to Fillmore Drive	30%	45%	106	8	B
	Fillmore Drive to Route 199	7%	53%	106	9	B
	Route 199 to Colonial Parkway	37%	41%	106	8	B
645	AIRPORT ROAD	95%	108%	332	15	A
646	LIGHTFOOT ROAD					
	Richmond Road to I-64	72%	84%	265	12	B
646	NEWMAN ROAD					
	I-64 to James City County	61%	59%	265	12	B
655	ALLENS MILL ROAD					
	Amory Lane to Dare Road	36%	63%	393	10	B
658	YORKVILLE ROAD					
	Lakeside Drive to Oyster Cove Road	38%	57%	174	7	C
660	BAPTIST ROAD					
	Old Williamsburg Road to Spring Road	29%	71%	233	9	B
704	COOK ROAD					
	Rte 17 to Old York Hampton Highway	100%	192%	347	15	A
	Old York Hampton Highway to Cook Rd	68%	96%	347	13	B
706	YORKTOWN ROAD					
	Hampton Highway to Big Bethel Road	58%	87%	122	9	B
713	WALLER MILL ROAD					
	Bypass Road to Caran Road	65%	166%	192	11	B
716	HUBBARD LANE					
	Penniman Road to Holcomb Drive	32%	47%	96	6	C
718	HORNSBYVILLE ROAD					
	Old York-Hpt Hwy to Goodwin Neck Rd	42%	55%	388	12	B
782	EAST YORKTOWN ROAD					
	Poquoson to Victory Boulevard	42%	65%	204	8	B
782	CARYS CHAPEL ROAD					
	Victory Boulevard to Poquoson	28%	45%	204	7	C
Sources: Virginia Department of Transportation, Hampton Roads Planning District Commission, and York County Planning Division						

Table 27

According to this model, primary roads in the County particularly in need of attention include Route 17, Route 134 (Hampton Highway), Route 171 (Victory Boulevard), and 173 (Denhigh Boulevard). In the secondary system, Oriana Road, Big Bethel Road, and Lakeside Drive stand out as roadways with a relatively high need for improvement.

For interstate and primary road system improvements, the County is largely beholden to VDOT and the Commonwealth Transportation Board, which each year adopts the State Six-Year Improvement Program, which establishes funding priorities for interstate, primary, and urban highway system improvements, as well as public transit, ports, and airports. It also includes secondary road projects for which Federal funding is being utilized. Each year the Board of Supervisors adopts a recommended program of interstate and primary

road improvement projects and priorities and makes a request of the Commonwealth Transportation Board that these projects be given consideration for inclusion in the State six-year plan. In this process, the County is competing with every other locality in the State

The County has much more control over secondary road system improvements than it does over the interstate and primary systems. Each year, the state distributes secondary road funds among the counties under VDOT jurisdiction. VDOT serves as the fiscal agent, so no actual money changes hands, and these funds can be spent *only* on secondary road system improvements. The County works with the local VDOT representatives to prioritize secondary road projects over the next six-year period and to allocate the funds accordingly. The Board of Supervisors formally establishes those priorities through the adoption each year of the Six-Year Secondary Road Improvement Plan.

The 2015 Roadway Map depicts all County road projects that are in the 2018 Long-Range Plan for Hampton Roads (other than the Mooretown Road projects, which have been completed) as adopted by the region's Metropolitan Planning Organization (MPO). This plan was developed using a computerized travel demand model that allowed many different roadway scenarios to be tested and evaluated relative to one another. Unlike previous plans, this is a fiscally constrained plan. Also depicted on the map are short- and medium-term projects that have been programmed into VDOT's six-year improvement plans. Projects in York County, some of which are currently under construction or have already been completed, are listed below:

- Widen Route 17 to six lanes between the Coleman Bridge and Route 171
- Widen Interstate 64 to six lanes.
- Widen Fort Eustis Boulevard to four lanes between Route 17 and the Newport News city line
- Extend Fort Eustis Boulevard westward from Route 17 to the intersection of Goodwin Neck Road (Route 173) and Seaford Road (Route 622)
- Construct turn lanes at Route 134 and Big Bethel Road
- Widen Victory Boulevard (Route 171) to six lanes between Route 17 and Big Bethel Road and to four lanes between Big Bethel Road and the Poquoson city line
- Construct a full cloverleaf interchange at Route 199 and International Parkway.
- Widen and extend Mooretown Road (Route 603).

Also depicted on the map are short- and medium-term projects that have been programmed into VDOT's six-year improvement plans. These are listed in **Table 28** below.

PROGRAMMED SECONDARY ROAD IMPROVEMENT PROJECTS		
ROUTE #	ROUTE NAME	IMPROVEMENT
600	Big Bethel Road	Intersection improvements at Routes 171 and 134
620	Lakeside Drive	Intersection improvements between School Lane and Dare Road
621	Dare Road	Left turn lane at Constitution Drive
621	Grafton Drive	Reconstruct between its two intersections with Route 17, including bike lanes and a sidewalk
641	Penniman Road	Reconstruct between Route 199 and Old York Road and between Alexander Lee Parkway and Government Road
782	Cary's Chapel Road	Intersection improvements at Route 171

Table 28

With the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and its reauthorization in 1998 under the name TEA-21 (Transportation Equity Act for the 21st Century), Congress recognized the need to look beyond road construction in developing solutions to our nation's transportation problems. Alternative modes of transportation – including transit, rail, bicycles, and walking – were given renewed attention in transportation planning.

MASS TRANSIT

As discussed earlier, only a small proportion of County residents uses mass transit. This is partly because there is very little mass transit available in the County. James City County Transit (JCCT), is the only mass transit operator serving York County residents, providing service to the Penniman Road/James-York Plaza area. In an effort to provide public transportation for County residents who need it, the County entered into a

partnership with Pentran and the Virginia Department of Rail and Public Transportation to institute fixed route peak-hour bus service in June 1994. The service, which was paid for mostly with Federal ISTEA funds and operated as a three-year pilot project, never attracted significant ridership. After three years, the Board of Supervisors discontinued the service in 1997, deciding that the subsidy per passenger was too great to warrant its continuation.

Another bus service that has proven more successful is the R&R (“Relax & Ride”) Visitor Shuttle that serves the Williamsburg area, including Water Country USA, Bypass Road, and the Ramada Inn on Merrimac Trail in the upper County. This seasonal service began in 1997 as a three-year pilot program funded mostly with Federal ISTEA money through a regional allocation supplemented with funds from Williamsburg, James City County, and York County. In its opening season, the R&R shuttle surpassed expectations, attracting a total ridership of 58,172 (570 riders per day). Several changes to the service were made for the 1998 season, including the addition of Water Country USA and improved service to Bypass Road. Ridership more than doubled, totaling 121,061 (1,111 riders per day).

Another form of transit is carpooling and ride sharing. To encourage this activity, many communities have constructed commuter parking lots. There are two such lots in York County – along East Rochambeau Drive near Route 199 and under the Coleman Bridge – both of which are owned by VDOT. In addition, the region funds a computerized ride-matching program known as Traffix. Experience nationally has shown that ride-sharing programs are most successful when employers provide incentives for their employees to participate, and Traffix is working to develop such programs. High occupancy vehicle (HOV) lanes that are limited in the morning and afternoon peak hours to vehicles occupied by two or more people offer another means of encouraging ride sharing. As congestion worsens in the general purpose lanes, there is more of an incentive for people to carpool. HOV lanes are planned for construction along I-64 between the Route 199 (south) interchange and I-664 in Hampton.

RAILWAYS

York County is located to the northeast of the CSX main-line between Richmond and the coal port facilities of Newport News. This track generally runs along the spine of the Peninsula and provides both passenger and freight service.

Amtrak provides daily service between Newport News and Boston, with scheduled stops at Newport News and Williamsburg and flag service at Lee Hall, citizens throughout the County have access to the Amtrak transportation network in relatively close proximity to their homes.

The movement of freight along the CSX line is important to both the economy and the transportation network. The primary activity along this main-line route is the hauling of coal to the coal terminals in Newport News. Six to eight coal trains a day traverse the CSX line. Virginia Power and Amoco are the major private rail freight users, but C. A. Barrs Contracting, Custom Concrete, and Reynolds Recycling all use rail service. The Yorktown Naval Weapons Station also utilizes rail freight.

The existing CSX main-line and the Amoco spur provide an opportunity to locate rail-served industry in the Goodwin Neck/Seaford area, which is designated for industrial use. In addition, Busch Industrial Park could be opened to potential rail service if a joint use arrangement can be reached with the U.S. Navy regarding the Cheatham Annex spur. This facility has not been regularly used for a number of years and would likely need to be repaired and upgraded to serve the heavy freight needs of warehousing and industrial users. However, the availability of rail service could provide market niche opportunities that are currently unavailable, particularly if passenger service is expanded.

Expanded rail service does provide potential problems as well as opportunities, however. The three major problem areas are noise, impact on the other transportation modes, and competition between freight traffic and passenger rail traffic for the same main-line track. In all three cases, effective scheduling is the primary answer, together with close monitoring of the at-grade rail/road crossings in the County to ensure both safety and reduction of delays to automobile traffic.

A Major Investment Study (MIS) of the CSX Railway Corridor was completed in 1997. The purpose of the MIS was to study the likely impacts of alternative transportation investment strategies in the

transportation corridor, which extends approximately 34 miles from Williamsburg to Hampton. Alternatives studied include transportation system management, enhanced bus service, HOV/bus lanes, light rail transit, and advanced light rail transit. Local jurisdictions including York County were involved in reviewing the study's findings and recommendations and in selecting the locally preferred alternative, which is to enhance bus service in the short term while planning for light rail service in the long term. The CSX Corridor preferred alternative will be integrated with two other transportation studies – the I-64 MIS and the Hampton Roads Crossing Study – that have recently been completed.

The I-64 MIS, which began in 1996 and was completed in 1998, analyzed the entire transportation corridor between Richmond and Hampton and Newport News, including both the I-64 corridor and the CSX corridor. In addressing rail needs, the I-64 MIS calls for double-tracking the CSX corridor between Richmond and Newport News to provide for some separation of passenger rails and freight service. This will allow passenger rail speeds up to 110 mph and eight trains per direction per day. With these improvements, rail ridership along the CSX corridor is projected to increase from its current level of approximately 520 daily person trips (34,320 person miles traveled) to approximately 3,000 daily person trips (178,000 person miles traveled) by 2015. These improvements are also consistent with the long-term objective for establishing high-speed rail service between Richmond and Washington, D.C.

The Hampton Roads Crossing Study evaluated numerous alternative conceptual designs and corridors for a future third crossing of Hampton Roads. This study, which also included the CSX corridor, identified a preferred corridor for that could possibly include a transit component.

BIKEWAYS

Bicycles can be an important component of the County's transportation system. The benefits of bicycle use include energy conservation, reduced noise and air pollution, traffic reduction, and health and fitness improvement. Increasingly, bicycle use has become a viable means of transportation as well as a recreational activity. York County, because of its mild weather, relatively flat terrain, and tourist attractions offers ideal opportunities for bicycling.

In 1991, the Colonial Parkway and Route 132 were the two recognized bikeways in the County. In addition, Bypass Road contains a multi-use trail along its southern side. Since then, York County joined with Williamsburg and James City County in developing a Regional Bikeway Plan, which was adopted by the three localities in 1993. In developing the Bikeway Plan, the advice of both the general public and bicycle enthusiasts was sought, and it was also recognized that a regional approach was appropriate since bikeways, like roads, should not abruptly end at jurisdictional boundary lines. In accordance with this plan, 9.5 miles of shoulder bike lanes have since been built along Old York-Hampton Highway and Amory Lane, and another 13 miles are scheduled for construction – along Mooretown Road/International Parkway, Grafton Drive, and Goodwin Neck Road – by the end of 1999.

There are three basic types of bikeways recognized by both the U.S. and Virginia Departments of Transportation that have been used in developing bicycle plans in the region:

- **Multi-Use Trails** are constructed physically separate from roadways. They may be developed either in a separate right-of-way apart from roads and streets or as a path within the road right-of-way but physically separated from motor vehicle traffic. Such facilities should be considered along roadways with high traffic volumes and speeds, across bridges and causeways or through scenic areas where motorized traffic would be inappropriate. While providing an environment relatively protected from conflicts with vehicles, multi-use trails occasionally suffer from lack of maintenance, and the other users (joggers, rollerbladers, walkers, etc.) can interfere with bicycle use. Furthermore, the remoteness of some of these facilities can present personal safety concerns. These potential disadvantages should be carefully considered when making decisions with respect to siting such facilities. Multi-use trails are also the most costly type of bikeway to construct.
- **Shoulder Bike Lanes** are constructed adjacent to traffic lanes and are generally delineated by pavement markings. Such bikeways provide a moderate degree of safety as the road accommodates travel lanes for both motor vehicles and bicycles. They are much less costly than separate paths and often can be constructed in conjunction with highway widening projects. Paved shoulders four to five feet in width

are generally sufficient for this purpose and have significant safety benefits for motor vehicles as well as cyclists. Shoulder lanes should be used especially along roads having moderate traffic volumes and speeds and where there are unusual roadway geometrics that impair safety.

- **Shared Roadways** are those where the travel lanes are shared by all users of the roadway. Occasionally, the travel lanes are widened to 14 or 15 feet rather than the standard 12 feet, but signs are often the only accommodation. These facilities are appropriate on roads with very low traffic volumes, adequate sight distances, and residential speeds. Moreover, shared roadways can be used as an initial step in providing bike facilities. Shared roadways need more active and frequent maintenance, particularly of the roadway edges, and should be considered for plant mix (asphalt) surfacing rather than tar and chip.

In 1994, the Historic Triangle Bicycle Advisory Committee (HTBAC) comprised of representatives of Williamsburg, James City County, and York County was formed. Part of HTBAC's mission is to coordinate updates to the regional bicycle transportation plan first adopted in 1993. Such an update was undertaken in 1996-97. Unlike the original plan, the update incorporates not only transportation-oriented facilities but recreational ones as well. Several series of public input sessions were held during the development of this plan. These were sponsored by HTBAC, the James City County Parks and Recreation Commission, the York County Parks and Recreation Advisory Board, and the Williamsburg Department of Parks and Recreation. The resulting Regional Bikeway Plan reflects five years of public input from more than 400 citizens and enthusiasts in the region. In York County, the Regional Bikeway Plan provides the bikeway system listed in **Table 29**.

Type	Miles	Percent of Total
Multi-Use Trails	22.4	19.5%
Shoulder Lanes	57.4	50.0%
Shared Roadways	35.0	30.5%
TOTAL	114.8	100.0%

Table 29

WALKWAYS

Walking is the most basic and yet probably the most overlooked mode of transportation in our society. Encouraged by an increasingly dispersed land use pattern, Americans are more dependent than ever before on their automobiles, even for short trips. According to the Nationwide Personal Transportation Survey (NPTS) conducted in 1990, an estimated 7.2% of all trips are made by foot, down from 8.5 % in the 1983 NPTS.

In a number of obvious cases, York County can be defined as the place where the sidewalk ends. Richmond Road, Second Street, and Merrimac Trail provide the most startling examples that sidewalk construction has not been a priority in York County as sidewalks end at the Williamsburg-York County line. There are some streets in the County, however, that do have sidewalks or pedestrian/bicycle trails. These include Bypass Road and a segment of Lightfoot Road in the upper County, Water Street and Ballard Street in Yorktown, and First Avenue, Coventry Boulevard, Owen Davis Boulevard, and Kiln Creek Parkway in Tabb. In addition, sidewalks are present along many of the County's subdivision streets since the Zoning and Subdivision Ordinances require walkways in most medium- and high-density residential developments.

In November 1995, on the recommendation of the Transportation Safety Commission, the Board of Supervisors adopted a sidewalk plan for York County. This plan, which envisions a sidewalk network that encompasses 33 miles of roadway, was based on two premises: that people should be able to walk safely to nearby schools, shops, parks, churches, libraries, and they should be encouraged to do so. Accordingly, the sidewalk plan focuses on areas where people live within a reasonable walking distance of such facilities.

The roadways along which sidewalks are proposed are divided into three broad categories based on the proposed funding mechanism:

- **Category A** includes roads where an improvement is planned and where sidewalks can be constructed in conjunction with the planned improvement.

- **Category B** includes largely undeveloped roads in commercial areas where sidewalks will be needed in the future as development occurs. The County can require sidewalks in these cases as a condition of development.
- **Category C** includes roadways where there is a demonstrated need for sidewalks but where neither roadway improvement nor significant new development is likely in the foreseeable future. In these cases, it will be up to the County or affected landowners, if they so desire, to pay for sidewalks, possibly with assistance from Federal funding sources.

AIRPORTS

York County is served by three commercial airports. Newport News/Williamsburg International Airport, which straddles the County boundary with Newport News, is the closest but has by far the least air passenger traffic. Norfolk International and Richmond International have ten and seven times the passenger air travel respectively and are each approximately one hour from most parts of the County, depending on traffic and the time of day. None of these airports is a world-class facility.

Other airport facilities that are located in or affect York County include Langley Air Force Base in Hampton, airfields at Camp Peary and the Yorktown Naval Weapons Station, and the Williamsburg-Jamestown Airport in James City County, which serves some of the general aviation needs of the Williamsburg area.

The need for improvements to the airport will be dictated by demand. In 1997 the Peninsula Airport Commission, which represents the cities of Newport News and Hampton, adopted an Airport Master Plan that considers three possible growth scenarios. The low scenario projects that annual airport operations (takeoffs and landings) will grow from approximately 169,400 in 1995 to 222,800 by 2030. In this scenario the annual number of passenger enplanements (outbound) at the airport will almost triple from 162,000 in 1995 to 642,000 in 2030. In the medium growth scenario, operations are projected to reach 265,900 by 2030, with enplanements reaching 2.8 million. This is referred to as the “linear hub scenario” which assumes “a higher level of point-to-point air service to communities of interest with the airport capturing a higher share of its market-area airline passengers.” The high growth scenario projects a dramatic increase in activity, with 482,200 annual operations and 8.4 million enplanements by 2030. This scenario “assumes that the volume of activity in the national airport system results in the creation of new connecting hub airports to off-load conventional flight-delay-prone connecting airports, as happened in the 1980’s.”

NEWPORT NEWS/WILLIAMSBURG INTERNATIONAL AIRPORT PROJECTED ANNUAL OPERATIONS AND ENPLANEMENTS								
Growth Scenario	1995		2000		2010		2030	
	Operations	Enplanements	Operations	Enplanements	Operations	Enplanements	Operations	Enplanements
Low	169,400	195,000	177,700	256,000	196,200	395,000	222,800	642,000
Medium	169,400	195,000	202,600	1,080,000	226,700	1,696,000	265,900	2,831,000
High	169,400	195,000	202,600	1,080,000	328,000	3,632,000	482,200	8,462,000
Source: Peninsula Airport Commission, Newport News/Williamsburg International Airport Master Plan Executive Summary								

Table 30

The 1997 Airport Master Plan calls for the ultimate extension of both existing runways and construction of a third in order to accommodate the high-growth “connecting hub” scenario. While such a configuration would extend the runways closer to populated areas of York County, the noise aspects of this configuration may actually be reduced in future years as noise abatement technologies are developed and utilized, both at airports and on the planes themselves. In fact, the Master Plan predicts that the area affected by noise from the fully developed airport will be less than the current situation.

Both Norfolk International and Richmond International Airports have also recently adopted new master plans based on projected growth in activity. Norfolk International is projecting to triple its annual number of enplanements from 1.3 million in 1993 to 3.8 million in 2030, while annual operations are projected to almost double during this period (from 131,318 operations in 1993 to 258,200 operations in 2030).

Richmond International, where operations increased by 40% between 1985 and 1995, is also projecting continued growth through 2030, rising from almost 1.1 million enplanements in 1995 to 3.9 million in 2030.

Annual operations are projected to grow from approximately 150,000 in 1995 to slightly over 300,000 in 2030.

An “Eastern Virginia Airport System Study” is currently under way to analyze the air transportation needs of the greater eastern Virginia region, which encompasses the combined market area of the three airports. This study will address means to enhance capacity and efficiency and to stimulate economic development and perhaps lead to the eventual establishments of a major international airport. The goal of this study is to “have a plan to develop a balanced, highly competitive air transportation system that will place Eastern Virginia in a better position to attract new investments, create new jobs and compete in the global economy on a grander scale.” This effort is being coordinated by the Virginia Department of Aviation, with participation from the three airports, the Virginia Departments of Environmental Quality, Rail and Public Transportation, and Transportation, the Federal Aviation Administration, and the Richmond Regional, Crater, and Hampton Roads Planning District Commissions. Also involved in this effort is a private sector coalition called Virginia Gateway 21, which works through these public agencies with the goal of examining the potential for a world class airport system in eastern Virginia.

WATERWAYS

The many waterways in and around York County are used by residents and businesses for a variety of purposes including seafood harvesting, recreation, and passive enjoyment, but only the York River serves as a transportation artery. The York River, with a 32-foot wide channel, is one of the deepest rivers in the world. It is 33 miles long and was formed 4,000 to 6,000 years ago. The river begins at the junction of the Pamunkey and Mattaponi Rivers at West Point, Virginia. The York River is an estuary fed by a mixture of freshwater from rainfall and drainage from the west and tidal action and saltwater from the Atlantic Ocean and Chesapeake Bay from the east.

Three primary types of cargo are transported by water along the York River – crude oil and refined petroleum products to and from Amoco; military supplies to and from the U.S. Navy installations along the river, primarily the Yorktown Weapons Station; and both raw materials and finished paper products to and from the Chesapeake Corporation in West Point. There has also been some barging of sand and gravel.

In addition to cargo transport along the river, Yorktown has served as a port-of-call for passenger cruise ship line and has had other cruise ship lines call in the past. The major impediment to this type of activity in recent years has been the lack of adequate docking facilities. The public wharf on the Yorktown waterfront has fallen into disrepair, causing it to be closed several years ago. The Yorktown Master Plan calls for demolition of the old wharf and “reconstruction of a new wharf/pier complex which extends far enough into the river to allow deeper draft vessels to dock and which is long enough (approximately 200 feet) to allow two large vessels – such as tall ships, dinner cruise boats, or commercial cruise lines – to dock simultaneously.”⁵ The plan also recommends that facilities be provided for temporary docking of small pleasure boats that would be attractive to boaters wishing to make day trips to Yorktown to visit restaurants, shops, and historical attractions. In addition, the plan notes that the end of the existing pier in Yorktown could also be adapted to allow a cruise ship to dock parallel with the currents, since “the present configuration places the vessel alongside the pier, which is perpendicular to the current and difficult to maneuver.”⁶ An investor group is in the final stages of developing a lunch and dinner cruise operation based at the Yorktown pier.

The scenic vistas and value of the York River contribute to the ambiance of Yorktown and the entire County. With a few exceptions – most notably the Virginia Power Yorktown Power Plant, the Naval Weapons Station piers, and the Coleman Bridge – river views are relatively unspoiled by large-scale or industrial waterfront types of uses. The Colonial Parkway serves as the main tourist route between Williamsburg and Yorktown and the maintenance of the scenic values along this roadway is critical to preserving its appeal.

⁵ Yorktown Master Plan, adopted by the York County Board of Supervisors March 4, 1993 (prepared for the York County Board of Supervisors and the Yorktown Revitalization Steering Committee by Sasaki Associates, Inc., Carlton Abbott and Partners, Inc., and Anderson Associates, Inc.), p. 89.

⁶ Ibid., p. 46.

CHANGES SINCE 1991

Before 1991, transportation planning in Virginia was little more than compiling lists of desired roadway improvements without regard to cost or feasibility. The emphasis was on moving as many vehicles as possible as quickly as possible along a roadway. There traditionally had been no attempt to match costs with expected revenues. Consequently, transportation plans had no certainty attached to them and provided no guidance as to what improvements might actually be made within a period of time. Further, to the extent that different transportation modes were considered, they were done individually with little attempt to coordinate among them.

There have been numerous changes in roads and roadway planning since the adoption of the Comprehensive Plan in 1991. In 1991, Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA), which has changed the culture of transportation by placing more emphasis on planning and less on engineering. Also, regional and state transportation plans need to be “fiscally constrained” and conform with air quality standards. Finally, all modes must be considered in making transportation investment decisions. The goal is to allow transportation decisions to be more responsive to the needs and desires of local residents.

Road construction and improvement projects that have been completed or undertaken since 1991, include the following:

- Widening of the Coleman Bridge, removing a major bottleneck along Route 17 in Yorktown.
- Construction of Victory Boulevard (Route 171) between Route 17 and the Newport News City line, providing Tabb area residents with direct access to a full Interstate 64 interchange and opening up to development a significant amount of commercial, light industrial, and residential land
- Completion of Route 199 with a full cloverleaf interchange at Mooretown Road.
- Extension and widening of Mooretown Road.
- Widening of Old York-Hampton Highway, which consistently had one of the highest accident rates among secondary roads in the County.
- Widening of Amory Lane to improve access to Grafton High School/Middle School.

Consistent with the spirit and intent of ISTEA and TEA-21, York County has also made several strides toward establishing a more multi-modal transportation system. These include the adoption of a regional bikeway plan (with Williamsburg and James City County) and the implementation of the first phases of that plan, including bicycle lanes along East Rochambeau Drive. Bike lanes have also been installed along Old York-Hampton Highway and Amory Lane in conjunction with roadway improvement projects along those roads. The County also experimented with mass transit with a three-year bus service program that was funded mostly with Federal funds, and it continues to participate in the Williamsburg Area Visitor Shuttle with Williamsburg and James City County. In addition, the County adopted a sidewalk plan to improve pedestrian mobility and safety.

APPENDIX G: UTILITIES

EXISTING CONDITIONS

Regulated Utilities

The principal County concern with respect to regulated and similar types of utilities is aesthetics. Many County citizens view aboveground wires as visually unattractive, and underground wiring has been required since 1985 for all new development in the County.

Wireless telecommunications infrastructure has given rise to another set of aesthetic concerns with the proliferation of telecommunications towers. The development of new technologies has revolutionized the field of wireless communications. As a result, consumer demand for wireless telecommunication services – such as cellular and PCS phones, paging devices, two-way radios, and public safety services–has increased sharply during the 1990s. The fast-paced wireless communications industry has presented local governments the challenge of guiding the siting of the industry’s antennas in its communities, mainly antennas and their support structures. At times, it is difficult to find suitable locations that meet both the expectations of the wireless industry and the aesthetic goals of the community.

Support structures are typically needed for the placement of an industry’s antennas to deliver wireless communications. Antennas must be at specific heights to transmit and receive radio frequencies adequately. Existing support structures – such as buildings, utility poles, pylons, church steeples, water towers, highway signs, lighting poles, and existing towers – can help accommodate the industry’s antennas when they are located in or near a provider’s service area. Basically, any structure that meets the height requirements needed by the service provider can be adapted to accommodate an antenna. The industry often uses existing support structures when available, but when they are not available the communications provider must construct a support structure – usually a communications pole or tower –capable of supporting its antenna.

Sewer

The vast majority of the County is comprised of soils that have one or more significant limitations for septic systems. In addition, many areas of the County have a high water table eliminating the possibility of utilizing a septic system to adequately treat the sewage. Therefore, a sanitary sewer system is the preferred way to effectively handle the treatment of the sewage in the County.

York County’s role in public sewerage is to collect wastewater from the source and transmit it to the Hampton Roads Sanitation District (HRSD) system. HRSD is a regional authority which provides state-of-the-art wastewater treatment facilities, one of which, the York River Treatment Plant comprises 51 acres and is currently configured to provide tertiary treatment to 15 million gallons per day (MGD) and is expandable to 30 MGD. The plant’s outfall is into the York River at the Virginia Power Yorktown Power Plant. The Yorktown Plant treats all the sewerage from the lower portion of the County, all the sewerage from the City of Poquoson and most of the sewerage from the City of Hampton. The ultimate capacity of the York River Plant should provide sewerage treatment to any new development within its service area in the foreseeable future. The sewerage from the upper County is treated at the James River Plant located in James City County. These treatment plants are interconnected and the sewerage can be rerouted in case of emergencies.

HRSD annually prepares a five-year capital improvements program that contains those construction projects and engineering studies that are planned by HRSD over the next five years. The five-year projection shows when projects are expected to begin and an estimate of the amount of funds expected to be spent each fiscal year for planning purposes. The HRSD Commission does not approve the budget but simply adopts the plan. When each project is ready to proceed, it is brought to the Commission individually for approval. This allows for greater flexibility in scheduling projects and provides for the inclusion of an emergency project if needed.

PROJECT TITLE	DESCRIPTION	ESTIMATED COST
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PROJECT TITLE	DESCRIPTION	ESTIMATED COST
Lightfoot Interceptor Force Main	This project is part of a lease purchase agreement with the County. It consists of the design and construction of approximately 14,000 feet of force main beginning at the terminus of North Trunk Interceptor Force Main Part C and running along Lightfoot Road to Barlows Corner.	\$636,800
Colonial Williamsburg Pump Station Replacement	Replace a pump station that is undersized to meet present and future flows.	\$1,404,000
York River Treatment Plant: Re-Use Facilities	This project consists of the design and construction of a treated effluent polishing system to meet the water needs of two industries adjacent to the York River Treatment Plant (Amoco and Virginia Power).	\$1,054,400
York River: Gloucester Interceptor Force Main Evaluation	Conduct a study to decide if the settling of solids and sediment in the line is a problem and, if so, what should be done about it.	\$50,000
York River Treatment Plant: Odor Control Improvements	Design modifications to the headworks scrubber system at York River to meet current standards for process and redundancy.	\$675,000
<i>Source: Hampton Roads Sanitation District Capital Improvements Program, FY 1999-FY 2003</i>		

Table 31

In addition the CIP includes a list of long-range projects projected for the next five to fifteen years, including several in York County

PROJECT TITLE	DESCRIPTION	ESTIMATED COST
Tabb Pressure Reducing Station	Design and construction of a pressure reducing station on Yorktown Road	\$819,000
Yorktown Interceptor Force Main Parallel	Design and construction of approximately 11,000 feet of 36" force main and 25,516 feet of 48" force main to augment existing lines	\$6,748,200
Kiln Creek Interceptor Force Main	This 24" force main is proposed to tie to the 24" force main going through the Villages of Kiln Creek to the existing York River System.	\$842,400
<i>Source: Hampton Roads Sanitation District Capital Improvements Program, FY 1999-FY 2003</i>		

Table 32

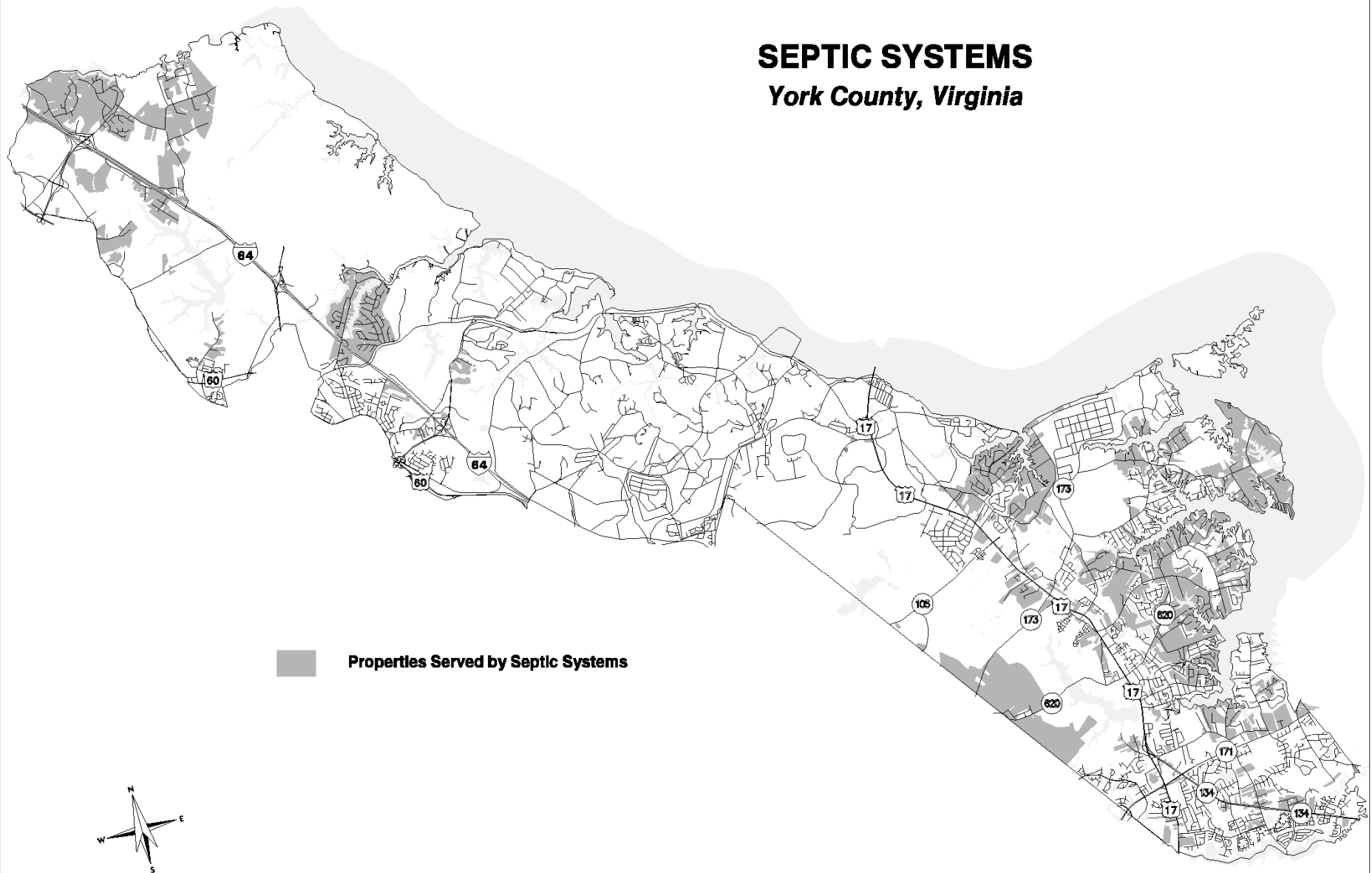
York County's Utilities Strategic Capital Plan lists and prioritizes sanitary sewer, water and stormwater projects to existing residential areas based on criteria established by the Board of Supervisors. This plan, originally titled Target 2000, is revised periodically. The most recent plan, now titled the Utilities Strategic Capital Plan, outlines the sewer projects and schedules those projects anticipated to be started through the year 2006. The program is self supporting and is funded through several sources of revenue including, the connection fees charged to the residents receiving service, connection fees charged to developers and from one-half of the revenue generated by the meals tax approved by the voters in a referendum.

Future sewer service areas that are not currently under way but are included in the Utilities Strategic Capital Plan are, Tide Mill, Dare Heights, Skimino Hills, Marlbanks, Back Creek Road, the Falcon Road/Loblolly Drive area, Allens Mill, the Darby-Firby area, Burts Road, Queens Lake, Schenck Estates, Waterview Road, Wildey Road, Hornsbyville Road, York Point, Old Wormley Creek, Banbury Cross, Old Quaker Estates, Kentucky Farms, Whites/Faulkner, Oak/Dogwood, Springfield Road, Skimino Farms, and Mooretown Road.

In undeveloped areas of the County, the developer of a project is required to extend the necessary sewer service to that development and then dedicate the system to the County for operation and maintenance. The sanitary sewer system is required to be designed to provide service to the proposed development and in some cases over designed (lines larger and deeper) to provide for the extension of the system to accommodate future development without the requirement of an additional pump station.

SEPTIC SYSTEMS

York County, Virginia



May 15, 2001

**Prepared by York County
Computer Support Services**

Because of the County's topography and its many peninsulas, alternative sanitary sewer systems, such as vacuum sewer systems, are frequently used. Technology for vacuum systems has been around for years, but actual application of these systems in the collection of sanitary sewer is relatively new. The use of grinder pumps can also be cost-effective and be utilized in specific applications where gravity or vacuum systems are not economically or technically feasible.

Stormwater Management

Stormwater management has evolved over the years from providing proper drainage for prevention of flooding to controlling both quantity and quality of flow to pre-development conditions. This is done through a variety of Best Management Practices (BMPs). BMPs include wet ponds, dry ponds, infiltration systems, porous pavement, and even grass swales. The qualitative aspects of drainage are especially important to Chesapeake Bay Preservation and Watershed Management Areas.

Stormwater management systems must fulfill the following basic objectives:

- Prevent flooding and subsequent property damage caused by runoff from rainfall events.
- Control flow leaving a site after development to the pre-development rate unless it is discharging to an adequate system.
- Release water that is as free from sediment and normal water-borne pollutants as possible.
- Be maintainable so that they continue to function as designed.

All of these objectives should be accommodated in the *initial* design process since it is difficult and expensive to retrofit systems that fail to accommodate one or more of the objectives.

York County is composed of 10 major drainage basins, which have been divided into a total of 49 sub-basins.

The County completed a comprehensive Stormwater Management Plan that has been incorporated into the Utilities Strategic Capital Plan. County staff studied the various drainage sub-basins under full development conditions based on projected land use. For each sub-basin, the hydrology was computer-modeled and alternative solutions were analyzed to develop the optimum solution in terms of cost and effectiveness. Water quality issues were also taken into consideration. The plan makes recommendations for on-site and regional solutions. The plan suggested that stormwater management systems (BMPs) serving multiple properties may be more effective for controlling the quality and quantity of stormwater runoff than individual structural BMPs for every parcel.

Since the adoption of the Stormwater Section of the Utilities Strategic Capital Plan, the County has made significant progress in abating erosion and correcting the identified drainage problems. In specific, the Penniman Road Ravine, Queens Lake Ravine, Skimino, Mount Vernon School and Tabbs Lake Middle School have been completed. Future stormwater service areas that are not currently under way but are included in the Utilities Strategic Capital Plan are Lackey/Browns Park, Carver Gardens, Country Club Acres, Lakeside Forest, Brandywine, Woodlake, Greensprings, Nelson Park, Moorehouse Road, Seaford, Marlbank Farms, Magruder Woods, and Terrebonne.

The Board of Supervisors recently formed a citizen Drainage Advisory Committee to further review and prioritize the stormwater projects and provide a forum for citizen involvement.

As noted in the Environment element, other regulations have an impact on stormwater as well. The County will be permitted under the National Pollutant Discharge Elimination System program of the Clean Water Act by the year 2003. In addition the Virginia Department of Environmental Quality plays a greater role in monitoring the environmental effects of the County's stormwater projects for compliance with state regulations.

Water

The water supply system in York County is composed of several different suppliers and distributors. The largest single component of the potable water system is Newport News Waterworks (NNWW), which is operated by the City of Newport News and supplies approximately 5.6 MGD to customers throughout the County. In the lower County, NNWW is the sole water supplier to areas such as Dare, Grafton, Seaford, Yorktown, Lackey, and Tabb. In the upper County, NNWW supplies water to Nelson Park, York Terrace, and Carver Gardens via a distribution system owned, operated, and maintained by Sydnor Hydrodynamics. Mountain Lake Water Company also distributes potable water provided by NNWW via a privately owned system in a section of Carver Gardens.

The City of Williamsburg supplies approximately 0.9 MGD of water to York County residents in the Bypass Road and Hubbard Lane areas. The source of this water is surface water collected in the Waller Mill Reservoir. Approximately 3% of the water supplied to the County by Williamsburg serves the Hubbard Lane system, which is composed of two distributors: York County Public Utilities and Sydnor Hydrodynamics. York County distributes approximately 20% of this water to customers in Royal Grant and Parkway Estates; Sydnor sells the remaining 80% to the Queens Lake subdivision via a privately owned distribution system.

The James City Service Authority (JCSA) supplies and distributes approximately 5000 gallons per day (gpd) to upper County customers. The Ewell Industrial Park uses approximately 700 gpd and the Mooretown Road area uses the remaining 4,300 gpd. The JCSA draws water mostly from wells located in James City County.

York County also supplies and distributes approximately 0.087 MGD to upper County customers in Skimino, Banbury Cross, and Lightfoot via two separate small public water supply and distribution systems. The source water is groundwater from five wells drawing from the Chickahominy-Piney Point aquifer. These groundwater-based stand-alone systems provide water for residential and commercial areas. The three Skimino/Banbury Cross wells serve 265 connections, most of them residential, in the upper County east of Interstate 64. The two Lightfoot wells serve five commercial customers in the upper County west of I-64. The Virginia Department of Health monitors the drinking water from these wells for water quality. The State Water Control Board, through the Department of Environmental Quality, monitors the wells for withdrawal amounts.

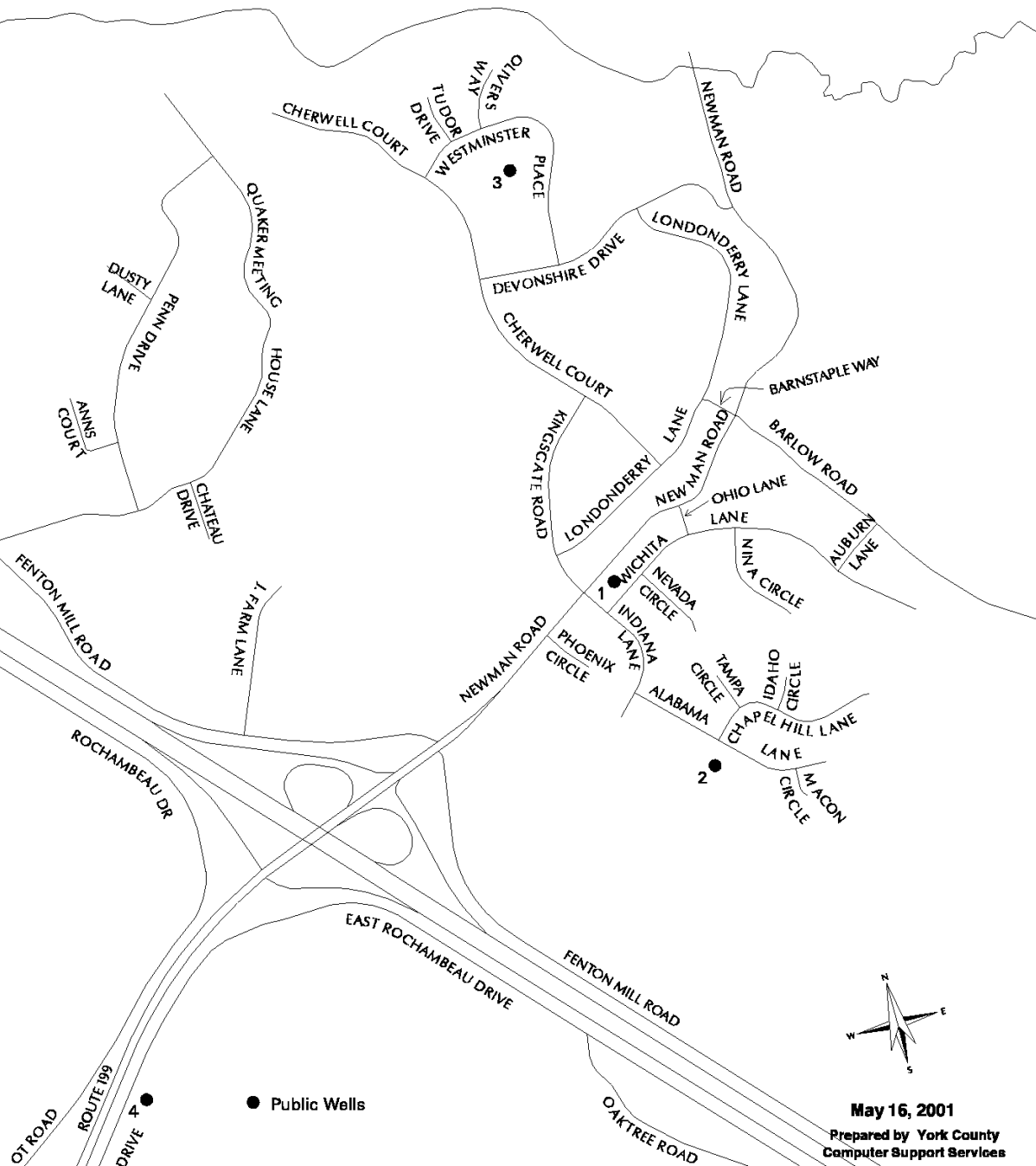
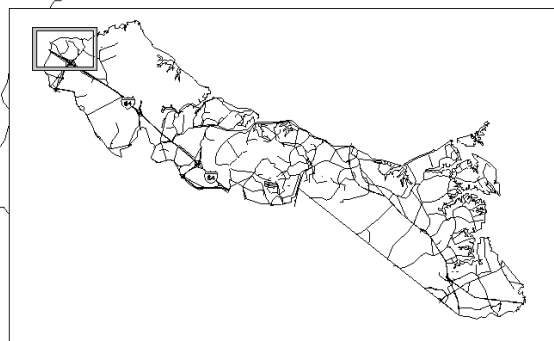
While cost and designs of water distribution systems are important considerations, the single most critical concern with respect to expanding the water service is the acquisition and development of a long-term supply of raw water. As mentioned above, the agreement entered into with the City of Newport News includes participation by the County in the Raw Water Study Group (RWSG) formed in September of 1988. The other member jurisdictions in the RWSG include, the cities of Newport News, Hampton, Poquoson and Williamsburg, and James City County. As the region grows, so too will the water demand, and as the year 2000 approaches the safe yield of the raw water supply is diminishing. The RWSG has estimated that an additional 35 MGD (million gallons per day) will be required by 2040. This represents an increase of approximately 60% over the existing 61 MGD safe yield capacity. Meeting this demand will require both short-term and long-term strategies because of the extended time lead time required to secure environmental approvals from the Commonwealth of Virginia, the Army Corps of Engineers and the Environmental Protection Agency (EPA). The Army Corps of Engineers and the EPA have stated that no new impoundments to create reservoirs would be approved unless it served the needs of a region.

York County has entered into an agreement with the City of Newport News for Newport News Waterworks to assume responsibility for **all** potable water service to the County except those areas served by Williamsburg or the JCSA. This agreement, however, is contingent on the Army Corps of Engineers' approval of the proposed King William Reservoir project. Because of uncertainty as to whether or not the reservoir will ultimately be approved by the Corps of Engineers, a contract has been prepared that is not contingent on the reservoir. When the contract is fully executed, which is expected to occur by the year 2006, NNWW will assume ownership and control of the five wells in the County that supply water to the Skimino and Lightfoot areas. At that time, York County will no longer be a water provider.

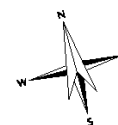
The Utilities Strategic Capital Plan also addresses the extension of public water service to existing residential areas served by private wells or private water suppliers. Just like the sewer extensions the Board of Supervisors established criteria which prioritize the areas of the County which will receive

PUBLIC WELLS

York County, Virginia



● Public Wells



May 16, 2001
Prepared by York County
Computer Support Services

public water. These areas are listed in the Utilities Strategic Capital Plan with the projected time schedule for those projects to be started by the year 2006. In addition to those areas where water extension projects are under way, future water service areas included in the Plan are Kay Lane, Schenck Estates, Kentucky Farms, Cheadle Loop, Burts Road, Lewis Drive, Russell Lane, Old Quaker Estates, Skimino Farms, Elliott Road, Queens Lake, Carver Gardens, York Terrace, Nelson Park, Patricks Creek and Charles Road.

The water extensions are funded in the same manner as the sewer extensions. However, since most of the developer extensions of public water are part of the Newport News Waterworks distribution system the County does not receive any revenue from these connections.

CHANGES SINCE 1991

Since the adoption of the Comprehensive Plan in 1991, County utilities have undergone significant changes. Most notable has been the implementation of the Target 2000 plan, which was an integrated five-year utilities capital plan approved by the Board of Supervisors on September 2, 1993. This plan is regularly updated. The current plan, now titled Utilities Strategic Capital Plan, is the biennial update approved in 1999. Implementation of these plans has led to the completion of sanitary sewer extension projects in the following areas:

- Lackey
- Seaford
- Dandy
- Lightfoot
- Cary's Chapel Road
- Queens Creek Road
- Tabb Terrace and Mill Cove
- Greensprings
- Landing Road
- York County Utilities office and shop
- IDA industrial shell building
- Dare, Phases I and II
- Calthrop Neck
- Old Lakeside/Patricks Creek

Additional sewer extension projects are currently under way in Dare Phases III and IV, Tidemill Road, Dare Heights, Claxton Creek, Seaford extension, and Barcroft.

Several sewer service upgrades have also been completed. The aging sewer lines in Middletown Farms were upgraded using a new technique in which the interior of the pipes were slip-lined with a flexible tube that, upon curing, formed a new pipe. The technique, called Insituform, was used to minimize costs and eliminate the need to dig up the streets. In addition, there have been many existing gravity sewer systems and pump stations that have been upgraded. .

Water extension projects have been completed in the following areas:

- Riverside Drive
- Jonadab Lane
- Brook Lane
- Marine Circle
- Whites Road
- Woodland Drive
- Lightfoot
- Oyster Cove Road
- Old Lakeside Drive
- Wildey Road

- Penniman Road
- Bay Tree Beach
- Springfield Terrace
- Dare, Phases I and II

The Fire Hydrant Installation Program, which started in 1988, has also been completed, installing a total of 121 fire hydrants in neighborhoods previously unprotected by this service. Water extension projects are currently under way in Dare (Phases III and IV)

APPENDIX H: LAND USE

EXISTING CONDITIONS

York County is located in the Virginia Coastal Plain on a peninsula formed by the James and York Rivers and Chesapeake Bay. The County is a part of the Hampton Roads region which also includes the Cities of Hampton, Newport News, Poquoson and Williamsburg and James City County, all of which adjoin York County, together with the southside localities of Norfolk, Virginia Beach, Portsmouth, Chesapeake, Suffolk and Isle of Wight County. York County is closely linked to this much larger region. For example, much of the residential development that has occurred in the County is a result of the growth of major employment centers located within the Hampton Roads region, particularly those in the cities of Newport News and Hampton. With continued development/improvement of the transportation system, this trend will, in all probability, continue even with new job opportunities increasingly available in the County. The most important point is, however, that actions in neighboring localities can often affect land use decisions in York County and vice versa.

Of the 108 square miles contained within the County's jurisdictional limits, approximately 37% of the total land area is owned by the federal government. These Federal landholdings include military installations such as the Coast Guard Reserve Center, U. S. Naval Weapons Station, Cheatham Annex, and Camp Peary, totaling approximately 21,000 acres, and the Colonial National Historical Park (3,900 acres). In addition to these large federal landholdings, the Cities of Newport News and Williamsburg each own reservoirs and watershed property in the County. Together, these two cities own 6,600 acres in the County. The combination of federal and municipal lands accounts for 31,500 acres, which equates to 46% of the land area in York County. While presenting a number of constraints for the County, these landholdings do ensure that a relatively large amount of open space will be perpetuated, thus contributing positively to the County's quality of life and the perception of a rural atmosphere.

In 1957, the County adopted its first zoning ordinance but without the benefit of a comprehensive plan. Land development occurred accordingly, but with little thought for the future. By 1976, the first Land Use Plan was adopted. By 1983, when the 1976 Land Use Plan was updated, the pressures of growth and development were being felt and many citizens believed that the "rural" character of the County was being threatened. At that time, considerable attention was given to evaluating not only the various impediments to development, but also making decisions about the kind of community that the citizens ultimately wanted.

The process of creating a vision for the future always begins with an analysis of the existing conditions. Consequently, the following pages contain a summary of the various land uses within the County. The 1999 Existing Land Use Map shows the distribution of land uses throughout the County while **Table 33** summarizes the distribution by type of use. In these discussions, *gross area* means all of the land area in the County, whereas *non-military* land area excludes the 31.9% of the County comprising the military installations, and *gross developable* land area excludes both military and recreation/conservation land. Gross developable land area is 44% of the County's gross land area and includes both already developed and vacant land. It is important to note that the term gross developable land area as used in the discussion in this section also includes areas which, due to environmental characteristics (e.g., wetlands, slopes, etc.) or other factors, could actually be undevelopable.

The existing land use patterns reflect the presence or absence of a wide variety of constraints and opportunities in the County. These include environmental factors, the transportation network, utilities, and various real estate market forces. Details about these factors and their influence are in other elements of this Comprehensive Plan and are not repeated here.

Residential

By 1990, the amount of residentially developed land had increased to 11,566 acres, representing an increase of 40% from the 1981 total of 8,275 acres and accounting for approximately 24% of the County's non-military land area. The amount of residentially developed land increased by over two thousand acres between 1990 and 1999 but the majority of the development activity continued to be in the

single-family detached category as has been the case historically. No change in this preference for single-family detached housing is expected.

Medium- and high-density single-family uses have tended to be located in proximity to public utilities and where convenient access to major thoroughfares is available. Even though the designations of "medium" and "high" denote smaller lots, the conventional development lot sizes permitted in these areas vary from 13,500 square feet to 20,000 square feet and are considerably larger than the "medium" and "high" density lots in the neighboring cities of Hampton and Newport News. However, since the early 1990s, the predominant trend in single family detached residential development has been the use of the "cluster" or "open space subdivision" development technique where lots are even smaller but the total number allowed is no more than would be permitted under conventional subdivision practices.

Multi-family residential development encompasses high-density owner-occupied townhouse units, rental units (typically apartment-style units), units arranged in apartment or townhouse-style buildings in the condominium form of ownership, and federally owned multi-family units. Multi-family development occupies approximately 600 acres or 1.3% of the County's non-military land area.

Commercial

The 2,580 acres devoted to commercial land uses in 1999 represent 5% of the County's non-military land area. Significant acreage of new commercial development has been added to the County's land use inventory since 1990. Most commercial activities have developed in a linear fashion along the County's major transportation corridors: Route 17 in the lower County; and Routes 143 and 60 in the upper County. However, the Kiln Creek commercial area along Victory Boulevard provides an example of a different development pattern - the commercial node - which is a concept that has been promoted for many years in the County's land use policies because it allows vehicle trips between various uses in the "node" without having to return to an arterial highway.

For the purposes of this discussion, the County's commercial activities have been grouped into the following categories:

- **Neighborhood:** Neighborhood commercial activities are oriented primarily toward serving the day-to-day needs of residents of nearby areas. These are generally termed convenience activities since their business depends more on the convenience of the establishment to the shopper than to any comparative advantage over other establishments offering similar products.

In York County, neighborhood commercial activities are generally located in the centers of the older, well-established residential areas. These types of activities are found in Lackey, Seaford, Dare, and at the Queens Creek Road/Penniman Road intersection. While these existing uses represent a fairly insignificant percentage of the total developed acreage in the County, this type of convenience-oriented development provides a service to nearby residents.

This category also includes water-related activities that have historically held a very important position in York County's commercial base. Included under this category of commercial activities are the marinas located in the Dare, Seaford, Dandy, and Waterview areas as well as several boat-building operations and seafood businesses.

- **General:** The general commercial category encompasses a wide range of retail and service activities oriented primarily toward supplying goods or providing services to a community or regional market. A majority of the commercial activities in York County fall under this classification.

General commercial activities in the southern portion of the County are concentrated along Route 17. The Grafton, York Square, Heritage Square, Kiln Creek, Village Square, Washington Square and Patriots Square Shopping Centers are the major hubs of activity; however, numerous other establishments are interspersed between these along the Route 17 corridor. In addition to the Route 17 corridor, other general commercial activities include the Shady Banks Shopping Center, which is located along the Route 134 corridor near a concentration of higher density residential developments.

The Route 143 corridor from Penniman Road to the Williamsburg city line is the location of the James-York Plaza and Farm Fresh Shopping Centers, as well as numerous other free-standing establishments. This activity center serves not only the residents of York County, but also draws business from adjacent areas of Williamsburg and James City County. Also important in the Williamsburg area are the Kingsgate Greene, Village Shops and the Festival Marketplace Shopping Centers which are oriented toward capturing trade from nearby residents as well as tourist interests.

This category also include a large portion of the County's total developed commercial land area classified as "tourist commercial" in the 1991 plan. These tourist commercial activities are concentrated in the Williamsburg market area. Much of this land area, however, is attributable to the several large commercial campgrounds located in the Lightfoot area. Nevertheless, the Bypass Road corridor, with its existing motels and restaurants, and the Route 199/I-64 interchange area where Water Country USA is located, represent the primary tourist commercial areas.

There are a few tourist commercial activities concentrated in the Yorktown area as well as several motels along Route 17; however, the latter facilities tend to serve a transient business market rather than a tourist market in most cases.

- **Limited:** For the most part low-intensity businesses and professional offices are scattered throughout the commercial areas of the County. There are, however, several areas where small clusters or concentrations of these types of activities have located including the Victory Boulevard, Heritage Square, and Grafton areas and the Route 17/Cook Road triangle.

Industrial

The 1,500 acres devoted to industrial land uses represent 3.4% of the County's non-military land area. The great majority of this industrial land area is utilized by the Amoco oil refinery and the Virginia Power generating plant, both located on the Goodwin Neck peninsula. These two operations comprise the major portion of the General Industrial activities in York County. Also included in the General Industrial category for the purposes of this analysis were the numerous junkyards at the southern end of the Route 17 corridor. Primarily, the basis of the categorization as heavy industrial uses was the impact that these activities tend to have on their surroundings in terms of characteristics such as noise, dust, odor, traffic generation, and visual appearance.

Limited Industrial activities are scattered throughout the County and are in many cases located in the midst of commercially oriented areas. The County has experienced a considerable increase in the amount of limited industrial development in recent years, largely as a result of the efforts of the Industrial Development Authority. Examples of this activity are the Greene, Bethel, Victory, Busch, and Ewell industrial parks. In addition, the industrial "shell" building constructed by the Industrial Development Authority in 1997 will serve as the anchor of the York River Commerce Park, a 90-acre light industrial park located off Old York-Hampton Highway.

Public/Semi-Public

Public and semi-public uses consume a total of 1,220 acres, or 2.7% of the non-military land area. Included in the public classification are the County's public school facilities, fire stations, and office buildings, the State operated Victory Center at Yorktown, post offices, and the Commonwealth of Virginia's Emergency Fuel Depot property near Cheatham Annex.

The semi-public classification of land uses consists primarily of churches, however, a large portion of the land area is attributable to the Colonial Coast Girl Scout Council camp in the Skimino area of the County.

Military

Military landholdings account for approximately 20,930 acres, or 31.9% of the County's gross land area. Included under this classification are the following:

- Bethel Manor military housing complex

- U. S. Coast Guard Reserve Training Center
- Naval Weapons Station
- Naval Fuel Depot
- Cheatham Annex Naval Supply Center
- Camp Peary

As previously noted, this vast amount of military property exerts a major influence on land use and development patterns in York County. Most notable is the fact that the Naval Weapons Station “divides” the County into its “upper” and “lower” portions.

Open Space

For the purposes of this analysis, Open Space has been divided into the following three sub-categories:

- **Recreation and Conservation areas:** Lands identified under this category include the Colonial National Historical Park, York County's Back Creek, Charles E. Brown and New Quarter Parks, the City of Williamsburg's Waller Mill Park, and the extensive holdings of the Newport News and Williamsburg Waterworks (Harwood's Mill, Lee Hall, and Waller Mill watersheds). The 15,470 acres that these uses occupy represent 34.7% of the County's non-military land area.

- **Agriculture:** Commercially productive agricultural activities account for an estimated 1,300 acres or 2.9% of the County's non-military land area. The majority of these activities are concentrated in the Lightfoot and Skimino areas. Several other agricultural operations are spread throughout the County; however, none are extensive. In general, agricultural activities in York County contribute more to the perception of a rural atmosphere than they do to the County's economic base.

- **Vacant:** Vacant and undeveloped, privately-controlled land comprises almost 8,700 acres, or 19.4% of the County's non-military land area.

YORK COUNTY EXISTING LAND USE, 1999				
LAND USE CATEGORY	GROSS AREA (Acres)	% OF GROSS AREA	% OF NON-MILITARY LAND AREA	% OF GROSS DEVELOPABLE LAND AREA
RESIDENTIAL				
Single-Family	13,290	20.3%	29.8%	45.6%
Multi-Family	600	0.9%	1.3%	2.1%
TOTAL RESIDENTIAL	13,890	21.2%	31.1%	47.7%
COMMERCIAL	2,580	3.9%	5.8%	8.9%
INDUSTRIAL				
Limited	260	0.4%	0.6%	0.9%
General	1,240	1.9%	2.8%	4.3%
TOTAL INDUSTRIAL	1,500	2.3%	3.4%	5.1%
PUBLIC/SEMI-PUBLIC	1,220	1.9%	2.7%	4.2%
MILITARY	20,930	31.9%	NA	NA
OPEN SPACE				
C				NA
A				4.5%
Vacant	8,660	13.2%	19.4%	29.7%
TOTAL OPEN SPACE	25,430	38.8%	57.0%	NA
GRAND TOTAL	65,550	100.0%		

CHANGES SINCE 1991

Significant trends and changes in land use or factors that influenced land use for the period 1991 to 1999 (and that will continue to do so into the future) are summarized as follows:

- Residential development activity, particularly in the single-family detached category, has continued to be strong, but the number of units constructed annually has decreased considerably from the high levels experienced in the mid to late 1980s. The *cluster* or *open space subdivision* development has become the typical technique used because of its flexibility and its attractiveness in dealing with the difficult characteristics of environmentally sensitive or infill development sites. Several

townhouse/duplex developments have been undertaken and have sold well. It is likely that developer interest in seeking sites for this type of housing unit will continue.

- Most of the very large potential residential development sites in the lower County have been used. It is unlikely that major planned developments on the magnitude of Coventry, Kiln Creek or Yorkshire Downs will be proposed, simply because tracts that large are unavailable.
- The County has begun to emerge as a retail commercial destination with the development of several large scale commercial projects - most notably the Village Square Center (Super Kmart) on Victory Boulevard. The Victory Boulevard corridor between Route 134 and the Newport News city line is centrally located to the entire Peninsula and, as a result, the area has experienced a significant transformation.
- As traffic volumes have increased on Route 17 so too have the number of traffic signals. This is viewed with consternation by the average motorist but is a necessary consequence of the use of Route 17 as a major commercial corridor. In fact, the installation of traffic signals has made the adjacent commercial sites much more attractive for new and expanded commercial development.
- Some of the County's older commercial areas/developments have been rehabilitated and renovated, thus having a positive impact on the tax base and the appearance of the immediate area. This trend is likely to continue as commercial market potential increases. It has even prompted some discussion of the possibility of conversion of one of the least attractive areas of the Route 17 corridor - the junkyards - to a different type of commercial use. While this has not occurred, the emergence of the Route 17/Victory Boulevard area as a commercial destination will continue to keep attention focused on that area.
- The new Grafton Middle/High School at the intersection of Grafton Drive and Amory lane has created a major community activity center and, in conjunction with several new residential developments in the immediate area, seems to be creating renewed interest in the Grafton commercial area - an area which once was "downtown" York County.
- The construction of the County's first industrial "shell building" by the Industrial Development Authority in the new York River Commerce Park represents an additional step in the development of the Goodwin Neck industrial corridor - an area that has been zoned for such uses since 1957. This construction has the potential to stimulate the transformation of this area into a major light industrial commerce center and its development will be complemented by the planned extension of Fort Eustis Boulevard, thus providing more direct access to Interstate 64.
- The Interstate 64/Route 199 interchange area in the vicinity of Water Country is poised to become a major activity center. The future development potential of the area has been enhanced by the acquisition of the approximately 900-acre "Whittakers Mill" property (and Water Country) by the Anheuser-Busch Corporation. This has infused significant capital resources and heightened the development potential of the area.
- The completion of the segment of Route 199 between Interstate 64 and Route 60 parallel to Lightfoot Road has created a major commercial corridor for the County. The County has developed a water system to serve the area and sewer service is also available. Some new development has already occurred but the full potential of the area is yet to be realized. With the completion of the full interchange at International Parkway and the completion of the International Parkway/Mooretown Road connection to the Bypass Road corridor set to occur in the next several years, this area is poised to also become a major enhancement to the County's non-residential tax base.

APPENDIX I: CHANGES TO THE 1991 COMPREHENSIVE PLAN

INTRODUCTION

Each element of the 1991 Comprehensive Plan contains a series of recommendations divided into Goals, Objectives, and Implementation Strategies. These are listed, in numerical order, in the first column of the following table under the heading “1991 Plan.” The second column, under the heading “Status/Explanation,” explains how each of these recommendations was treated by the 2015 Comprehensive Plan Review Committee. In most cases there was either no change or minor changes wording that were made to improve clarity without altering the meaning. In some cases, the committee recommended substantive changes. The third column of the table, labeled “1999 Revision,” shows how each goal, objective, and implementation strategy appears in the updated plan.

1991 PLAN	STATUS/ EXPLANATION	1999 REVISION
OVERALL		
POLICY STATEMENTS		
NOTE: THE POLICY STATEMENTS APPEAR IN THE INTRODUCTION TO THE COMPREHENSIVE PLAN RATHER THAN IN THE GOALS, OBJECTIVES, AND IMPLEMENTATION STRATEGIES SECTIONS. CONSEQUENTLY, THE COMMITTEE MADE NO SPECIFIC RECOMMENDATIONS TO AMEND THEM. NEVERTHELESS, SOME OF THESE STATEMENTS CAN BE FOUND IN ANOTHER FORM IN THE VISIONS, GOALS, AND STRATEGIES RECOMMENDED BY THE COMMITTEE.		
Encourage preservation of the County’s aesthetic qualities through the retention of large contiguous open space areas.	<i>Does not appear.</i>	
Establish residential land use densities that would allow the County population to expand to a maximum level of 80,000 people if all available residential land in the County were fully developed.	<i>No substantive change.</i>	1. Provide for orderly residential growth that would allow the County population to reach a maximum of approximately 80,000 persons. (<i>Land Use</i>)
Ensure proper growth management by requiring that decisions on the type of development allowed in the County be based on present and/or planned availability of adequate utilities, community facilities and services, transportation networks, the presence of environmental constraints, and existing development patterns.	<i>Appears as a strategy in the <u>Land Use</u> element.</i>	2.1 Apply the appropriate land use density (units per acre) and intensity (type of use) to each parcel in the County based on the property’s physical characteristics and the present or planned availability of public infrastructure, facilities, and services.
Encourage the “node development” concept for new commercial and industrial development.	<i>Does not appear.</i>	
Promote opportunities for a variety of housing types including selected residential areas designed to provide “affordable” housing.	<i>Rewritten in the form of a goal and a strategy.</i>	1. Make suitable housing available to households of a wide range of income levels. (<i>Housing</i>)
		1.1 Provide opportunities through zoning for a variety of housing types. (<i>Housing</i>)
Promote community facilities in locations that serve the needs of all County residents.	<i>Rewritten in the form of a Vision statement.</i>	York County should be a place where the citizens feel safe from crime, receive prompt and effective emergency services when needed, and have convenient access to public

1991 PLAN	STATUS/ EXPLANATION	1999 REVISION
		facilities at appropriate locations to serve them economically and efficiently. (<i>Community Facilities</i>)
Promote a transportation network that provides for the safe, efficient, and convenient movement of vehicular and pedestrian traffic.	<i>Rewritten in the form of a Vision statement.</i>	People and goods should be able to move safely, efficiently, and cost-effectively within the County and throughout the region. (<i>Transportation</i>)
Encourage the protection and preservation of the natural environment by maximizing the conservation of the County's natural resources and minimizing environmental degradation.	<i>Rewritten as a goal.</i>	Preserve and protect environmentally sensitive areas and natural resources from the avoidable impacts of land use activities and development. (<i>Environment</i>)
Provide adequate utility service at appropriate locations to serve a variety of needs conveniently, efficiently, and economically.	<i>Revised for specificity and reworded in the form of a Vision statement.</i>	York County should be a locality where the people have access to safe and efficient means of wastewater disposal, to water supplies that are sufficient in quality and quantity to meet household and fire suppression needs, and to other utilities that enhance the overall quality of life. (<i>Utilities</i>)
Encourage the diversification of the County's tax and employment base through the attraction and retention of clean, environmentally-sensitive industry and commerce.	<i>Does not appear.</i>	
Encourage the promotion of tourism and water-related commercial activity through proper land-use designation and public infrastructure improvements.	<i>Does not appear.</i>	
Ensure that industrial and commercial locational opportunities are provided in those areas that are most compatible with such use by providing for the extension of mainline public utilities to designated economic priority areas.	<i>Appears within Strategy #1 in the Economic Development element (shaded). Recommended service areas (Economic Development Priority Areas, which are identified in the body of the plan) are listed by name, with the addition of Commonwealth Drive and the Virginia Power property and the deletion of Denbigh Boulevard.</i>	1.1 Participate with the private sector in the development of two or more business/industrial parks in the County., with primary emphasis on the following: *** <ul style="list-style-type: none"> Improving vehicular access and assisting in the cost of public sewer and water extension to Economic Development Priority Areas. ***
Encourage the development of light industrial and corporate park environments.	<i>This policy statement appears, in much greater detail, as Economic Development Strategy 1.1 above.</i>	See above

1991 PLAN	STATUS/ EXPLANATION	1999 REVISION
COMMUNITY FACILITIES		
OVERALL GOALS		
As the population grows, so too does the need for community services and the facilities where these services are provided. Such facilities include schools, parks, fire stations, libraries, jails, waste management facilities, and government offices. The overall goal is to provide high-quality community facilities at appropriate locations to serve conveniently, efficiently, and economically the needs of all County residents.	<i>Rewritten in the form of a Vision statement.</i>	York County should be a place where the citizens feel safe from crime, receive prompt and effective emergency services when needed, and have convenient access to public facilities at appropriate locations to serve them economically and efficiently.
A. OBJECTIVES		
1. Use the Comprehensive Plan to guide the process of budgeting County funds for capital improvement projects.	<i>No substantive change.</i>	1.1. Use the <u>Comprehensive Plan</u> to guide the budgeting of County funds for capital improvement projects.
2. Coordinate the location and timing of community facilities in recognition of existing and anticipated needs and characteristics of present and future populations.	<i>No substantive change.</i>	1. Coordinate the location and timing of public facilities in recognition of existing and anticipated needs and characteristics – including the age distribution and location -- of present and projected populations.
3. Recognize the County's community facility needs that are shared by neighboring localities and the opportunities of meeting these needs more efficiently through regional approaches.	<i>Revised and broadened.</i>	2. Avoid wasteful duplication of effort in the construction and operation of public facilities.
B. IMPLEMENTATION STRATEGIES		
1. Each year, develop a six-year Capital Improvements Program to guide the construction of capital improvements in accordance with the Comprehensive Plan.	<i>Revised – <u>inclusion of the planning commission is a policy change.</u></i>	1.2. Annually review and update, with a resolution from the Planning Commission to certify its conformance with the <u>Comprehensive Plan</u> , the six-year Capital Improvements Program.
2. Ensure that architectural and aesthetic standards for community facilities meet or exceed the standards for private facilities so as to provide for public buildings that are attractive and set a positive example for high-quality development in the County	<i>Reworded – no substantive change.</i>	1.3. Provide public buildings that set an example for quality development in the County.
3. Design public buildings to accommodate a variety of uses.	<i>No change.</i>	2.2. Design public buildings to accommodate a variety of uses.
4. Where feasible and practical, cooperate with neighboring localities in the establishment of regional facilities to provide for greater convenience, efficiency, and economy in the construction and operation of community facilities.	<i>No substantive change.</i>	2.1. Where feasible, cooperate with neighboring localities to establish and maintain regional public facilities for the use of residents of multiple jurisdictions.
NEW RECOMMENDATION		

1991 PLAN	STATUS/ EXPLANATION	1999 REVISION
		14.5 Provide regular, ongoing review, maintenance, and repair of school buildings.
DETENTION AND LAW ENFORCEMENT		
GOAL		
The goal for detention and law enforcement is to provide detention/correctional facilities of sufficient capacity to house securely the County's future inmate population.	<i>No change.</i>	6. Provide detention/correctional facilities of sufficient capacity to house securely and safely the County's future adult and juvenile inmate population.
A. OBJECTIVES		
1. Participate in regional approaches to providing facilities for the incarceration of both adult and juvenile inmates.	<i>Deleted – Objective has been met.</i>	
2. Provide for the separation of sentenced and unsentenced inmates and different types and classes of inmates (e.g., male and female, felons and misdemeanants).	<i>Deleted – Objective has been met.</i>	
3. Provide adequate and appropriately located administrative/office space (e.g., headquarters, sub-stations) to accommodate a manpower level sufficient to meet the County's present and future law enforcement needs.	<i>No substantive change.</i>	5. Provide Sheriff's facilities to accommodate manpower levels sufficient to provide prompt and effective crime protection, prevention, and law enforcement to all areas of the County.
4. Establish conveniently located facilities for juvenile detention.	<i>Deleted – Objective has been met.</i>	
5. Provide adequate holding facilities convenient to the County courthouses.	<i>Deleted – Objective has been met.</i>	
B. IMPLEMENTATION STRATEGIES		
1. Working with the other localities of the 9th Judicial District, and the 15th District localities as well, develop a regional 20- to 24-bed juvenile detention center in a location which provides opportunities for future expansion of the facility as necessary. This facility should provide accommodations for both sexes and should include youth recreational and classroom space and office space. Since historically more juvenile detainees come from the Peninsula area than from any of the other areas involved, the juvenile detention center should be built in York County, James City County, Williamsburg, or Gloucester County. For the convenience of all localities involved, the juvenile detention center, if it is to be in York County, should be built in the northern area of the County.	<i>Deleted – The Virginia Peninsula Regional Jail and the regional Juvenile Detention Center have been completed.</i>	

1991 PLAN	STATUS/ EXPLANATION	1999 REVISION
2. Participate in the performance of a feasibility study, conducted by the Hampton Roads Planning District Commission, for a Peninsula regional jail to serve York County, Poquoson, Williamsburg, and James City County.		
3. Study carefully the results of the above-mentioned feasibility study and, if the feasibility of a regional jail is indicated, proceed with negotiations with the other three localities involved for the development of a Peninsula regional jail. If built in York County, this jail should be located in the an area where it will be most easily accessible for all four jurisdictions.		
4. Establish a Sheriff's Department sub-station in the northern portion of the County. Perhaps such a facility could occupy a portion of the Hubbard Lane Fire Station site if there would be no conflict in telecommunications needs. Another possibility is to locate a sub-station within a residential or commercial development, if there is developer interest, on a dedicated site, thus benefiting both the County and the developer.	<i>Revised to include possible sub-station in Lackey.</i>	5.1 Evaluate the need for and feasibility of establishing Sheriff's substations in strategic locations, such as the upper County, Lackey, and Tabb.
5. Maintain holding facilities in the current Sheriff's Department building at least until the construction of a new courthouse.	<i>Deleted – Holding facilities are in the new York-Poquoson Courthouse which opened in 1997.</i>	
6. Perform a needs study to determine if the County should consider the creation of a police department.	<i>Deleted – Not considered a Community Facility issue.</i>	
FIRE AND RESCUE		
GOAL		
The central purpose of emergency response planning is risk minimization. Emergencies, by definition, cannot be predicted. Although certain types of disasters may never occur, it is important that the County be prepared to respond to them. Toward this end, the goal for fire and rescue is to provide prompt and effective fire protection and emergency medical service to the entire County.	<i>No substantive change.</i>	7. Provide fire stations to accommodate manpower levels sufficient to provide prompt fire and emergency medical response to all areas of the County.
A. OBJECTIVES		
1. Establish fire stations so located, designed, equipped, and staffed to provide fire protection and emergency medical service to all areas of the County within an acceptable response time.	<i>Revised to reflect the overall goal of quick response to emergencies. Establishing fire stations is a means of implementing that goal.</i>	8. Maintain a five-minute average fire and emergency response time to at least 90% of the County's land area.
2. Locate and design fire stations in such a way as to provide	<i>No substantive change.</i>	7.1 Locate and design fire stations in such a way as to provide

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opportunities for expansion of service at such times and in such locations as necessary based on future population growth and development patterns.		opportunities for expansion of service as necessary based on future population growth and development patterns.
3. Participate with neighboring localities in mutual emergency aid agreements to provide for the sharing of resources in the event of a major fire or other disaster and to allow fire station service areas to cross jurisdictional boundaries so that fire protection and emergency medical service will be available to those areas which are isolated by geographical barriers or which have a population density too low to justify their own fire station.	<i>Combined with Objective #4 and Implementation Strategy #2 below into a single Strategy.</i>	
4. Participate with area military installations in mutual emergency aid agreements to provide for the coordination of response activities and the sharing of resources in the event of a major fire or other disaster, including water-related disasters.		
5. Consider the special needs of the Fire and Rescue Service with regard to roadway access and water availability prior to approval of development plans and in all decisions regarding utility extension and roadway construction.	<i>Deleted to eliminate redundancy with Implementation Strategy #7 below.</i>	
6. Enhance the capability of the Department of Public Safety to respond to and handle hazardous materials incidents and accidents and other special rescue situations.	<i>Deleted.</i>	
7. Provide greater opportunities for the training of County fire and rescue personnel to take place in the County.	<i>Combined with Implementation Strategy #6 into a single, more general Strategy.</i>	
B. IMPLEMENTATION STRATEGIES		
1. Adequately staff and equip every fire station in the County. The prioritization of equipment/manpower assignment to the various stations, as indicated by current trends with regard to development patterns and emergency locations, should be 1) Yorktown, 2) Tabb, 3) Seaford, and 4) Skimino. In addition, a station should eventually be constructed at the Kiln Creek site timed to coincide with the completion and occupancy of the Kiln Creek and Coventry planned developments it would serve. This station will be needed after the year 2000.	<i>Deleted.</i>	

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<p>2. Maintain and strengthen existing mutual and automatic aid agreements with all localities and military installations in the region. These agreements are vital components of the County's emergency response capability, and they should remain in place and, if possible, be strengthened even further. One potential area for improvement is maritime disaster response. With the possible introduction of a dinner cruise line on the York River and plans to revitalize Yorktown and generate more activity on the waterfront, the risk of a ship collision, boat fire, or other severe boating accident in the York River will grow. Plans and procedures should be in place to enable the Fire and Rescue Service to work in coordination with the Coast Guard (and/or the Navy) in the event of such a disaster.</p>	<p><i>Combined with Objective #3 above into a single Strategy</i></p>	<p>8.1 Continue to cooperate with neighboring localities and area military installations through mutual emergency aid agreements providing for the sharing of resources in the event of a major fire or other disaster.</p>
<p>3. Upgrade the County's hazardous materials response capability from Level 2 to Level 2E (Enhanced) if further industrial development utilizing hazardous materials takes place in the Goodwin Neck area. Such an upgrade would involve special training and equipment acquisitions. To the extent possible all avenues for sharing the burden for the cost of this upgrade with the development community should be explored. It may eventually be necessary to upgrade to Level 3, but that determination will have to be made sometime in the future after the County has had a chance to evaluate its hazardous materials risk.</p>	<p><i>Deleted.</i></p>	
<p>4. Secure one light-duty crash response vehicle and one heavy-duty crash response vehicle, with a second light-duty crash vehicle to be acquired later if deemed necessary. The light-duty crash vehicle should be housed at the Bruton district station and should be acquired first since I-64 runs through the northern section of the County and is the site of the most serious traffic accidents. The heavy-duty crash vehicle should be located at the Yorktown Station because of its central location. This recommendation was adopted by the Board of Supervisors in April 1989 as part of the County's</p>	<p><i>Deleted—Strategy completed.</i></p>	

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<u>Transportation Safety Plan</u> , which called for the acquisition of all three vehicles. However, since this proposed vehicle assignment will ensure that crash response will be available to all County residents, an additional light-duty crash vehicle may not be necessary.		
5. Begin to acquire all equipment and training necessary to establish a County Special Tactical and Rescue (STAR) team for handling special rescue situations. As of October 1989, sixteen York County Fire and Rescue Service personnel had voluntarily undergone the extensive training and were available for use as team members. Rescue equipment that will need to be acquired includes, in addition to the crash response vehicles recommended in #4 above, a remote supplied breathing air system, a portable compressor, trench equipment, confined space hardware, and additional rope, hardware and air bags. It is possible that much of this equipment can be provided by various businesses in the County that would most likely benefit from the existence of a STAR Team, such as owners of high-rise buildings. The STAR Team should operate out of the Yorktown Station, both because of its central location and because the heavy-duty crash vehicle is proposed to be housed there. As with #4 above, this recommendation was adopted by the Board of Supervisors as part of the 1989 <u>Transportation Safety Plan</u> .	<i>Deleted.</i>	
6. It is recommended that the County investigate the construction of a facility for the training and re-training of fire and rescue personnel. This training facility should include a training tower, burn building, classrooms, offices and equipment storage. The facility can also be made available to neighboring localities for their fire and rescue training needs.	<i>Combined with Objective #7 into a single, more general Strategy.</i>	8.2 Provide greater opportunities for the training of County fire and rescue personnel.
7. Expand the availability of and accessibility to public water throughout the County. Although this issue is dealt with in the Utilities element of this plan, it is important to recognize the need for expanded water availability for	<i>Revised for greater specificity and brevity and to eliminate redundancy with <u>Utilities</u> element.</i>	8.3 Consider the needs of the Fire and Rescue Service with regard to roadway access and water availability prior to the approval of development plans and in all decisions regarding utility extension and roadway construction.

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reasons of public safety as well as public health. This means that not only does public water need to be extended into unserved areas, but also there must be an adequate number of hydrants in place. The Fire and Rescue Service does have tankers to respond to fires in areas not served by public water, but just as private wells are not an ideal substitute for a steady supply of public water, neither are tankers. In addition, the Department of Public Safety should continue to be consulted in all future decisions relating to either public water extensions or approval of development plans.		
GOVERNMENT OFFICES		
GOAL		
The goal for government offices is to provide sufficient and appropriately located office space to house efficiently and economically the County's administrative and constitutional offices and the court system.	<i>Deleted.</i>	
A. OBJECTIVES		
1. Provide offices with sufficient space for the employees, equipment and records necessary to provide the citizens with efficient and responsive County government.	<i>Deleted.</i>	
2. Maintain Yorktown as the center of County government.	<i>No substantive change.</i>	3. Maintain historic Yorktown as the seat of County government.
3. Expand courtroom space to accommodate sharply increasing caseloads in York County's court jurisdiction.	<i>Deleted – Objective has been met.</i>	
4. Develop and utilize alternative means of record storage to minimize the amount of space needed.	<i>Deleted as a general Objective but included as a Strategy (See Implementation Strategy #1 below).</i>	
5. Require County offices to meet or exceed the development standards, including landscaping standards, that are required of private development so as to ensure public buildings that are attractive and set a positive example for high-quality development in the County.	<i>Deleted to eliminate redundancy with Implementation Strategy #2 above.</i>	
B. IMPLEMENTATION STRATEGIES		
1. Explore the possibility of converting County files and records to a microfiche or other space-saving format.	<i>No substantive change.</i>	4.1 Develop a space-saving computer-based method of storing and retrieving County files and records.
2. Develop a master plan for additional courtroom and office space.	<i>Deleted – Strategy has been completed.</i>	
		NEW RECOMMENDATION
		4. Make optimum use of existing court

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			and office space.
			4.2 Develop a pilot program to test the feasibility of allowing some County employees to work from their homes (i.e., telecommute) using modern technology.
LIBRARY SERVICE			
GOAL			
The goal for library service is to ensure the availability of convenient high-quality library service to every resident of the County.		<i>Deleted to eliminate redundancy with Objective #1 below.</i>	
A. OBJECTIVES			
1. Establish library service that meets or exceeds the minimum standards for a Level I library as defined by the Virginia State Library Board.		<i>Revised to eliminate reference to specific Levels of Excellence. Strategy 9.1 added.</i>	9. Achieve higher levels of excellence in library service.
2. Provide convenient library service to residents of the Tabb area.		<i>Objectives #2 and #3 combined into a single general Goal</i>	9.1 Expand the number and range of library books, tapes, periodicals, and other materials available as necessitated by population growth, public demand, and technological change.
3. Maintain the availability of high-quality library service in the northern area of the County.			10. Provide convenient library service to all areas of the County.
4. Expand and extend library service to accommodate the needs of the present and future population.		<i>Deleted to eliminate redundancy with other Objectives and Strategies.</i>	
B. IMPLEMENTATION STRATEGIES			

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<p>1. The County should proceed with the acquisition of land for and construction of a permanent facility. In order to meet the floor space guidelines of the Virginia State Library Board, library space in the southern portion of the County will have to increase by about 130% by 2010; this is beyond the expansion capabilities at the present facility. Since the present facility is under-utilized by Tabb residents, and since Tabb has the most heavily concentrated population in the County (and will become much more so), any new facility should be built in Tabb. Libraries are most successful when located in shopping areas that attract a lot of people, so this new library should be located along the Route 17 or 134 corridor, or in close proximity thereto. The ultimate size of the Tabb library should be about 16,000 square feet; however, a smaller building could be constructed initially and be designed for easy expansion. Approximately 2-3 acres of land will be needed to accommodate such a building, including parking space and landscaped open space (buffers). The library may include ancillary activities and/or features, such as community meeting rooms or an amphitheater, but these may not be included in the library floor space calculation.</p>	<p><i>Deleted – Strategy has been achieved.</i></p>	
<p>2. When the Tabb library is built, relocate central library operations to the Tabb library and designate the current York County Library as a branch. With at least 6,000 more square feet of floor space than the existing York County Public Library, the Tabb library should become the central library. The VSLB guidelines state that at least half of the necessary total library floor space in a locality (based on the standard of .6 square feet per person) should be located in the main or central library. Since this would entail relocating the library offices and technical services from the present library to the Tabb library, it would also enable the present library to expand its collection without enlarging the building itself, which would be costly.</p>		

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3. Continue the agreement with the Williamsburg Regional Library to provide funding in exchange for service to York County residents. Any attempt on the part of York County to provide library service in this area would be a duplication of effort. The County should provide adequate annual funding to the regional library system in order to continue its service to County residents. It may eventually be necessary for the County to join the regional library system.	<i>No substantive change.</i>	10.1 Continue the current practice of contributing funding to the Williamsburg Regional Library system in exchange for service to York County residents.
		NEW RECOMMENDATION
		10.2 Provide state-of-the-art on-line access to the library services of York County.
PARKS AND RECREATION		
GOAL		
The goal for parks and recreation is to provide for a range of recreational facilities and activities adequate in number, type, size, and location to accommodate the needs of all County residents.	<i>No substantive change.</i>	11. Provide for a range of recreational facilities and activities adequate in number, size and location to accommodate the needs of County residents.
A. OBJECTIVES		
1. Continue implementation of the "school/park" concept to provide for cooperation between the school system and the Board of Supervisors in the provision of County recreational facilities.	<i>Combined with Implementation Strategy #1 below into a single Strategy.</i>	
2. Recognize the existence and importance of private and other non-County facilities and programs which help to meet the recreational demands of County residents.	<i>No substantive change.</i>	11.7 Identify and recognize private and other non-County facilities and programs that help meet the recreational demands of County residents.
3. Consider the particular needs of special populations in the County, such as the young and the elderly, when planning for recreational facilities.	<i>Disabled residents added to the list of special populations whose particular recreational needs should be provided for.</i>	11.4 Provide for the particular needs of the young, the elderly, and the physically and sensory challenged when planning for recreational facilities.
4. Acquire land in the County for additional recreation facilities as determined necessary, and within budgetary constraints, to meet the existing and projected demand for both public and private recreation programs.	<i>Revised for less specificity.</i>	11.2 Formulate plans to acquire sufficient acreage for additional recreation facilities to meet the existing and future demands for both public and private recreation programs.
5. Consider expansion of existing recreational facilities where feasible.	<i>Combined with Implementation Strategy #4 below.</i>	
6. Increase recreational and boating access to waterways.	<i>Updated and revised for greater specificity.</i>	11.5 Consider the recommendations of the Hampton Roads Planning District Commission (HRPDC) <u>Regional Shoreline Study</u> for increasing public recreational and boating access to waterways.

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7. Increase utilization of New Quarter Park in a manner which is appropriate in recognition of its ecological and environmental characteristics and access limitations.	<i>No substantive change.</i>	12. Increase the use of New Quarter Park.
8. Promote the provision of open space and recreational facilities in new residential developments.	<i>No change.</i>	11.8 Promote the provision of open space and recreational facilities in new residential development.
9. Ensure that athletic fields and other recreational facilities are well maintained.	<i>No change.</i>	13. Ensure that athletic fields and other recreational facilities are well-maintained.
B. IMPLEMENTATION STRATEGIES		
1. Review, revise as necessary, and present for formal consideration by the Board of Supervisors the "Second Wind" plan for establishing recreational facilities at County school sites.	<i>Combined with Objective #1 above into a single Strategy</i>	11.1 Complete implementation of the "school/park" concept to enhance recreational use of school sites.
2. Maintain the formal written agreement between the School Board and the Board of Supervisors providing for the sharing of recreational facilities on school grounds and setting specific terms for this joint use.	<i>Moved to the Schools chapter.</i>	16.1 Maintain the formal written agreement between the School Board and the Board of Supervisors providing for the sharing of recreational facilities on school grounds and setting specific terms for this joint use. (<i>Schools</i>)
3. Begin developing master plans for the Kiln Creek and Grafton Drive school sites to allow for the consideration of the establishment of athletic fields and/or courts, lighted wherever possible, at these sites in advance of construction of schools.	<i>Deleted – Strategy has been completed.</i>	
4. Evaluate the recreational use potential of the former County landfill and, subsequent to closeout, the current landfill.	<i>Combined with Objective #5 above.</i>	11.6 Under the direction of the Parks and Recreation Advisory Board, explore the feasibility of <ul style="list-style-type: none"> • developing athletic fields on the County's two former landfill sites, and • expanding existing recreational facilities
5. Develop a community center to include meeting rooms, kitchen facilities, recreational facilities, satellite County offices, and multi-purpose rooms; it could also be co-located with the Tabb library recommended elsewhere in this element. Such a center would be an appropriate location for any senior citizen programs that may be developed in the future to serve the County's rapidly growing senior population. In addition, consideration should be given to including appropriate recreational facilities. Initially, as a pilot program, the County should explore the possibility of renting various	<i>Revised for brevity.</i>	11.3 Develop a community center with meeting rooms, recreational facilities, kitchen facilities, and multi-purpose rooms.

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private facilities—such as club houses that are owned and operated by homeowners' associations—for senior citizen programs and other community uses.		
6. Open New Quarter Park to the general public for passive and active recreation purposes on a seasonal basis (i.e., Spring, Summer, early Fall, weekends).	<i>No substantive change.</i>	12.1 Open New Quarter Park to the general public for both passive and active recreation purposes on a regular basis.
7. Pursue the acquisition of available surplus government and private lands for use as park land. Acquisition of waterfront property is particularly needed, for much of York County's shoreline is federal property and unavailable for the use and enjoyment of citizens of the County.	<i>Deleted to eliminate redundancy with Strategy #7.2 and Strategy #7.5.</i>	
8. Establish improved communication between the County and the various private recreation associations in the County—such as York County Little League Baseball, York County Youth Football Association, and the Yorktown United Soccer Club—to incorporate the needs of such groups in parks and recreation planning and policy-making. Toward this end, the York County Parks and Recreation Advisory Board should meet with representatives of these groups on a regular and frequent basis.	<i>Deleted – Strategy has been completed.</i>	
9. Work to establish an agreement with James City County and the City of Williamsburg to allow residents in the northern area of the County to join the James City County Recreation Center for the same fee paid by residents of those localities.	<i>Deleted.</i>	
10. Use as a cultural resource the various museums and college facilities within the Tidewater area and acknowledge their contribution to the cultural arts of our area.	<i>Deleted.</i>	
		NEW RECOMMENDATION
		13.1 Take athletic fields out of use on a rotating basis.
SCHOOLS		
GOAL		
The goal for schools is to provide a learning environment that is conducive to the education of all present and future school-age children in the County, while also encouraging adult education.	<i>No substantive change – divided into two separate Objectives.</i>	14. Provide a learning environment that is conducive to the education of all present and future school-age children in the County.

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		17. Promote lifelong learning.												
A. OBJECTIVES														
1. Establish a system of schools so located and designed to accommodate projected growth in the school-age population while continuing to provide a high-quality education.	<i>Deleted to eliminate redundancy with Goal 14.</i>													
2. To the maximum extent feasible, recognize the existence of both the general boundaries of residential neighborhoods and their proximity to schools in establishing school attendance zones.	<i>No substantive change.</i>	14.1 Consider the general boundaries of residential neighborhoods and their proximity to schools in establishing school attendance zones.												
3. Establish the following program capacity guidelines for each of the school levels: Elementary: 350 - 700 students Middle: 700-1000 students High: 1200-1800 students	<i>No substantive change. The program capacity figures, as they appeared in the Earthman report, are set forth in the body of the 1991 Plan. Since there were several different calculations of capacity in the Earthman report, and since the adoption of the lowest set of figures was a policy decision on the part of the Board of Supervisors, these figures have been set forth as a goal rather than merely an existing condition.</i>	15. Achieve and maintain the following overall student/classroom ratios and program capacity guidelines at each school: <table> <tr> <th>School Level</th><th>Student/Classroom Ratios</th><th>Program Capacity Guidelines</th></tr> <tr> <td>Elementary</td><td>22:1</td><td>350-700 students</td></tr> <tr> <td>Middle</td><td>23:1</td><td>700-1000 students</td></tr> <tr> <td>High</td><td>25:1</td><td>1200-1800 students</td></tr> </table>	School Level	Student/Classroom Ratios	Program Capacity Guidelines	Elementary	22:1	350-700 students	Middle	23:1	700-1000 students	High	25:1	1200-1800 students
School Level	Student/Classroom Ratios	Program Capacity Guidelines												
Elementary	22:1	350-700 students												
Middle	23:1	700-1000 students												
High	25:1	1200-1800 students												
4. Consider existing and planned development activity levels and their relationship to school system capacity before approving rezonings and planned developments so as to minimize the overburdening of the County school system.	<i>No substantive change.</i>	14.3 Before approving rezonings and planned developments, consider their potential impact on the school system so as to minimize school crowding.												
5. Provide for sufficient program capacity in every school to accommodate reasonable fluctuations in enrollment.	<i>Deleted to eliminate program capacity guidelines in Objective 15.</i>													
6. Provide opportunities for the use of school facilities by the community at large for non-school activities that do not conflict with school-related activities.	<i>Revised for less specificity.</i>	16. Optimize use of school facilities and grounds.												
7. Continue and refine implementation of the "school/park" concept to provide for cooperation between the School Division and the Board of Supervisors in the provision of County recreation facilities and programs.	<i>Combined with Implementation Strategy #8 below into a single Strategy.</i>													
8. Locate and secure dedication or reservation of school sites in advance of need through land-use controls or incentives or outright	<i>Deleted.</i>													

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purchase.		
B. IMPLEMENTATION STRATEGIES		
1. Review school membership and program capacity figures every 2-3 years with a committee composed of representatives of the School Board, Board of Supervisors, Planning Commission, and York County citizens.	<i>No substantive change. Since enrollment projection is a technical function and not a policy function, the committee process was deemed unnecessary.</i>	14.2 Review school enrollment projections every three years.
2. When feasible, alleviate school overcrowding through revisions to school attendance zones, rather than construction of new capacity, as long as there is excess school capacity at the appropriate grade level in the system.	<i>No substantive change.</i>	15.1 When feasible, alleviate school overcrowding through revisions to school attendance zones as long as there is excess school capacity at the appropriate grade level in the system.
3. Effectively utilize existing facilities by optimizing school capacity through permanent additions to and modifications of existing schools as a priority over new construction. Such modifications could include changing the use of an existing school.	<i>Revised to include the use of portable classrooms to alleviate temporary overcrowding.</i>	15.2 Install portable classrooms to alleviate temporary overcrowding (i.e., three years or less).
		15.3 Alleviate long-term overcrowding by optimizing school capacity through permanent additions to and modifications of existing schools.
4. If capacity deficits cannot be overcome through practical revisions to school attendance zones or additions to or modifications of existing school buildings, then new school construction should be pursued.	<i>Revised for greater specificity.</i>	15.4 Build new schools if and only if capacity deficits are projected to exceed the minimum program capacity level at the appropriate grade level for five or more years.
5. Maintain and strengthen cooperation between the School Division and the Department of Community Development in the preparation of school membership projections, which are integral to the school planning process.	<i>Deleted – Strategy has been completed.</i>	
6. Provide a cafeteria and a gymnasium in every school.	<i>No change.</i>	14.4 Provide a cafeteria and a gymnasium in every school.
7. Maintain the formal written agreement between the School Division and the Board of Supervisors providing for the sharing of recreational facilities on school grounds and setting specific terms for their use. Consider expansion of existing recreational facilities where feasible. Any new school sites acquired should be able to accommodate recreational facilities as well.	<i>References to recreational facilities deleted from Schools chapter.</i>	16.1 Maintain the formal written agreement between the School Board and the Board of Supervisors providing for the sharing of recreational facilities on school grounds and setting specific terms for their use.
8. Encourage future magnet programs, if any, to be located where excess capacity exists.	<i>No change.</i>	15.5 Encourage future magnet programs, if any, to be located where excess capacity exists.
9. Participate with neighboring localities in providing regional "continuing education" programs for	<i>No change.</i>	17.1 Participate with neighboring localities in providing regional "continuing education" programs for adults – such

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adults in York County and throughout the Peninsula.		as the Regional Partnership for Continuing Education and Peninsula Workforce Center at Thomas Nelson Community College – in York County and throughout the Peninsula.
		NEW RECOMMENDATIONS
		15.5 Provide regular, ongoing review, maintenance, and repair of school buildings.
		14.6 Support and strengthen the vo-tech program with private sector assistance in the development of the school curricula.
		14.7 Provide for regional alternative education programs.
SOLID WASTE MANAGEMENT		
GOAL		
The goal for solid waste management is to establish a comprehensive, coordinated system for managing York County's municipal solid waste in an efficient, cost-effective manner which protects the environment and promotes the health and safety of all County residents.	<p><i>NOTE: THIS CHAPTER WAS MOVED TO THE ENVIRONMENT ELEMENT.</i></p> <p><i>This goal has been achieved.</i></p>	
A. OBJECTIVES		
1. Participate with neighboring localities in establishing a coordinated regional solid waste management system to maximize the efficiency and economy of waste collection, recycling and disposal.	<i>Deleted – Objective has been met.</i>	
2. To the maximum degree possible, promote and provide the necessary facilities and programs for the recycling of waste products—by both households and businesses—to preserve landfill space, conserve valuable resources, and protect the environment	<i>Deleted – Objective has been met.</i>	
3. Work to expand markets for recycled and recyclable products.	<i>No substantive change.</i>	12. Expand markets for recycled and recyclable products.
4. Increase public awareness of the need for and benefits of recycling.	<i>Deleted as a general Objective but included as a Strategy aimed at implementing the overall Objective of increasing the County's recycling rate (See Implementation Strategy 7 below).</i>	
B. IMPLEMENTATION STRATEGIES		
1. Participate with the member jurisdictions of the Virginia Peninsulas Public Service Authority in the construction of a regional landfill and a Materials Recovery Facility (MRF). Every effort should be made to build the MRF at the site	<i>Deleted as no longer relevant.</i>	

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of the current York County landfill since it is centrally located and already has an established recycling drop-off facility on the premises.		
2. Establish a system of mandatory curbside collection of residential trash and recyclables contracted or franchised by the County (or VPPSA) to private haulers. A realistic waste disposal strategy for the 1990s will have to focus on integrated waste management strategies. In order to emphasize that recycling is the preferred means of waste disposal, curbside collection should be tied in some way to a system of rewards and penalties. For example, a higher pick-up fee can be charged for garbage than for recyclables, or people can be fined for failing to separate their recyclables from their garbage. For such a system to work, all County residents will have to be assessed a collection fee.	<i>Deleted – Strategy has been completed.</i>	
3. Require recycling on the part of business and industry in the County, using a similar system of rewards and penalties as proposed for households.	<i>Revised to eliminate the recycling mandate, since households are not required to recycle.</i>	10.1 Encourage recycling by both households and businesses as the preferred means of waste disposal.
4. Provide facilities, either locally or through VPPSA, for the collection and processing of yard waste into compost and mulch to be sold commercially, made available to County residents, and/or used by the County in landscaping and beautification projects.	<i>Updated to account for progress made since 1991.</i>	12.2 Aggressively market the products of the regional composting facility, including bagged compost material for sale to residents who do not own trucks.
5. Adopt County purchasing regulations and practices emphasizes the purchase of supplies that are made of recycled products and/or recyclable themselves. For example, only recyclable white office paper should be used (for ordinary, everyday purposes), and yellow legal pads should be prohibited unless made from recycled paper.	<i>Updated to account for progress made since 1991.</i>	12.1 Continue the County purchasing policy emphasizing the purchasing of supplies, where economically feasible, that are made of recycled products and/or are recyclable themselves.
6. Review existing County development ordinances—such as the Zoning and Subdivision Ordinances and the Building Code—to identify sections where amendment would be appropriate to promote recycling. For example, trash dumpsters are currently required in all new commercial, industrial, and multi-family residential developments as well	<i>Deleted – Strategy has been completed.</i>	

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mobile home parks. There is no requirement, however, for receptacles for recyclables.		
7. Conduct information/education campaigns to continue to instruct the public on the need for recycling.	<i>No substantive change. Specific Strategies added.</i>	10.4 Expand information/education campaigns to instruct the public on the need for recycling by providing materials to interested businesses, civic and homeowners' associations and any interested party.
		10.2 Aggressively advertise in local newspapers and the <u>Citizen News</u> the County's solid waste management programs both to inform residents and businesses of program offerings and to educate those already participating in the program.
		11.2 Continue the ongoing public information campaign to educate citizens in proper methods of recycling yard waste.
8. Establish minimum recycling goals for years beyond 1995.	<i>Revised for specificity.</i>	10. Achieve a 50% recycling rate.
9. Incorporate recycling education throughout the public school program, beginning in the elementary school curriculum.	<i>No substantive change.</i>	10.5 Continue to incorporate recycling education into the public school program from elementary school through high school.
		NEW RECOMMENDATIONS
		10.3. Expand the list of recyclable items based on participant input and/or market fluctuations.
		10.6. Continue to work with the Virginia Peninsulas Public Service Authority (VPPSA) to organize household hazardous waste collection days for materials such as old paint cans, paint thinner, fertilizers and pesticides, etc.
		11. Provide for the convenient, efficient, and safe removal and disposal of leaves and yard debris.
		11.2 Develop a program to publicly recognize and acknowledge "model" yard waste recycling programs by neighborhoods, groups, and individuals.

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ECONOMIC DEVELOPMENT		
A. OVERALL GOALS		
1. Promote economic development in order to enhance the quality of life for all citizens of York County.	<i>These three overall goals were combined and expanded upon in the form of a Vision statement.</i>	York County should be a community with a healthy and diverse economic base that provides well-paying jobs and generates sufficient revenue to pay for the service needs of both businesses <i>and</i> the citizens without detracting from the natural environment or the overall quality of life.
2. Encourage the diversification of the County's tax and employment base through the attraction and retention of clean, environmentally-sensitive industry and commerce.		
3. Promote the creation of a balanced employment base that provides economic opportunities for the full range of County citizens.		
4. Capitalize on the County's central location on the Virginia Peninsula and its relationship to the Interstate highway system.	<i>Deleted as a separate goal.</i>	
5. Encourage a regulatory environment that assists entrepreneurial activity.	<i>Deleted as a separate goal.</i>	
B. OBJECTIVES		
1. Expand white collar and technical employment in order for our highly educated and trained citizens, including our recent graduates, to find employment in the County. The attraction of professional and technical firms that provide higher-paying career opportunities will necessitate the creation of the first-class business park environments in which these types of firms prefer to locate. In a vehicle-oriented economy, immediate proximity to the Interstate highway system is essential.	<i>Objectives #1 and #2 were combined and revised for greater specificity</i>	1. Expand York County's tax base in accordance with the following targets: <ul style="list-style-type: none">• Increase the commercial and industrial proportion of York County's total tax revenue to 50%.• Increase the combined share of nonagricultural civilian employment represented by the Manufacturing, FIRE (Finance-Insurance-Real Estate), Transportation-Communication-Public Utilities, and Wholesale Trade sectors to 17%.
2. Expand the County's base of capital-intensive business and industry both to create higher-paying jobs (rather than simply creating large numbers of jobs) and to generate the tax revenues to help meet the public service needs of a growing population. These dual needs can best be served by emphasizing the location of "capital-intensive" rather than "labor-intensive" businesses.		
3. Ensure that all new business activity in the County is environmentally sensitive. Based on input of County citizens, as well as all of those individuals involved in the planning process, protection of our environment is of paramount concern. The natural environment of York County is one of its primary positive features, for businesses as well as residents, and the	<i>Combined with Objective #5 below into a single Strategy.</i>	

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utmost care must be taken to ensure that economic progress proceeds in harmony with natural conservation efforts.		
4. Build on the County's base as a tourist destination. Traditionally, the spring and fall "shoulder seasons" have been periods of very low occupancy, and there is a significant need to increase visitation during these "off-months." In order to assist these existing businesses in the County, it is necessary to promote the Williamsburg area as more than just a place to visit the restored area. In addition, it is essential that the Village of Yorktown continue to be developed as an attraction in and of itself.	<i>Revised for brevity and divided into a goal and a strategy.</i>	3. Increase visitation to York County. 3.2 Participate in the development of events and facilities designed both to bring visitors into the area during the shoulder seasons or off-season and to encourage visitors to remain longer.
5. Promote landscaping and eliminate visual blight to enhance the long-term visual attractiveness of the County's primary traffic corridors.	<i>Reworded and divided into a goal and two strategies.</i>	2. Enhance the long-term visual attractiveness of the County's arterial roadways. 2.2 Continue to require landscaping and, to the extent practical, the retention of existing trees and vegetation in all new development and redevelopment. 2.3 Undertake public improvements to the York County segments of Williamsburg area corridors, including Richmond Road, Bypass Road, Second Street, and Merrimac Trail.
6. Provide for greater flexibility in zoning and land use regulation to encourage creativity in project design and prevent costly and unnecessary delays.	<i>Divided into separate Goals and Strategies and reworded to emphasize the actual goal of eliminating unnecessary delays in plan approval. Although greater flexibility in zoning and land use regulation was achieved in 1995 with the adoption of the revised zoning ordinance and the creation of the economic opportunity zoning district, the goal of eliminating unnecessary delays remains.</i>	8. Eliminate unnecessary delays in the review of economic development projects. 9. Encourage creativity in the design of economic development projects. 9.1 Provide opportunities for the mixing and integration of different types of uses—both business and residential—within a single development under a cohesive overall master plan. 9.2 Review the Zoning Ordinance for opportunities to allow greater flexibility in the design of commercial and industrial projects, particularly at strategically located nodes.
C. IMPLEMENTATION STRATEGIES		
1 Participate with the private sector in the development of two or more corporate centers in the County. Primary emphasis should be on: A) Assisting in the cost of public utility extension in order to foster land price competitiveness. Primary emphasis should be on Interstate interchanges. B) Exploring the need for state-of-the-art	<i>No substantive change</i> <i>(A) The need for improved access to Economic Development Priority Areas has been added.</i> <i>(B) Deleted</i> <i>(C) Deleted</i> <i>(D) Deleted-Strategy accomplished.</i>	1.1 Participate with the private sector in the development of two or more business/industrial parks in the County., with primary emphasis on the following: • Constructing industrial shell buildings in strategic locations as market opportunities arise. • Improving vehicular access and assisting in the cost of public sewer and water extension to Economic Development Priority Areas.

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<p>telecommunications facilities in these parks.</p> <p>C) Seeking "Foreign Trade Zone" status for all or a part of at least one corporate center.</p> <p>D) Providing an opportunity for taller building heights in corporate center locations near the Interstate.</p>		
2 Study the need for and financial feasibility of creating a small business and technology-oriented "business incubator" facility in the County.	<i>Deleted – Strategy has been completed.</i>	
3 Investigate the feasibility of the development of a new convention and exhibition center.	<i>Deleted – Strategy has been completed.</i>	
4 Continue the Yorktown revitalization effort with initial emphasis on public improvements.	<i>No substantive change.</i>	3.1 Continue the Yorktown revitalization effort with initial emphasis on public improvements to the historic village of Yorktown and other historic sites in the County.
5 Determine the financial feasibility of alternative re-use for existing blighted commercial properties.	<i>Reworded for greater specificity</i>	2.1 Encourage the adaptive re-use of existing vacant commercial properties by utilizing all available tools and techniques, such as offering performance-based tax and regulatory incentives.
<p>6 Create a new, more-flexible economic development zoning classification for designated large tracts of land. Such a designation would allow, either by right, by use permit or through a planned development, the following range of economic development uses:</p> <ul style="list-style-type: none"> • Offices • Hotels • Retail • Timeshare/resorts • Golf courses • Warehousing and distribution • "limited industrial activities" (as defined by the York County Zoning Ordinance.) 	<i>Deleted – This was accomplished in 1995 through the creation of the economic opportunity zoning district.</i>	
7 Support the development of surface, air and water transportation improvements that will ensure the easy, economical and safe movement of the employees, customers and merchandise so vital to a vibrant regional economy.	<i>Revised to recommend transportation improvements, including rail improvements that are included in the <u>Transportation</u> element of the 1991 Plan.</i>	<p>See Strategy 1.1 above</p> <p>7. Exploit, upgrade, and extend existing rail linkages in York County to promote industrial and warehousing uses;</p>

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			7.1. In concert with the U.S. Navy, determine the feasibility of modernizing and using the Cheatham Annex spur line to serve privately held industrial property adjacent to it. If determined feasible, preliminary engineering for such modernization should be performed.
8	Support the development of state-of-the-art telecommunications facilities in the County to serve both the educational and professional/commercial communities.	No substantive change	6.3 Support the development of state-of-the-art telecommunications facilities in appropriate locations in the County.
9	Promote and support linkages between the secondary and higher education systems and business and industry to ensure that the needs of both employers and potential employees are being addressed.	No change	5.1 Promote and support linkages between the secondary and higher education systems and business and industry to ensure that the needs of both employers and potential employees are being addressed.
10	Require the use of water-saving fixtures in all new development and do not encourage water-intensive industrial users.	Revised and moved to the <u>Utilities</u> element	11.2 Seek enabling legislation from the General Assembly to allow the County to amend the building code and other development ordinances to require the application of water conservation techniques in all new development and redevelopment projects. (<u>Utilities</u>)
11	Continue to participate with the private sector in jointly marketing privately owned, non-residential properties, utilizing proceeds from the Industrial Development Authority Capital Fund.	Revised for greater specificity	6.2 Refine the Industrial Development Authority's database of available non-residential properties for marketing purposes.
12	Continue to seek opportunities to replenish the Industrial Development Authority's Capital Fund for economic development and to seek to acquire surplus state and federal properties for expanded economic development opportunities.	Divided into three separate strategies	6.8 Continue to replenish the Industrial Development Authority's Capital Fund for economic development.
			6.6 Aggressively pursue the conversion of surplus state and federal lands for expanded economic development.
			6.7 Negotiate with the Commonwealth of Virginia to convert the State Fuel Farm on Penniman Road for an economically beneficial use.
13	Continue to enhance public awareness of the role of economic development in York County.	Reworded as a Goal with specific Strategies added	4. Increase public awareness of the importance of economic development to York County.
			4.1 Publish at least one article in each issue of the Citizen News publicizing business and its importance in York County's economy
			4.2 Develop a "Focus on Business" segment as a regular feature on the "County Courier" program on York County's cable channel 36
			NEW RECOMMENDATIONS
			6. Promote York County as an attractive location for economic development.

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		6.1 Publicize the high quality of the County's labor force as an inducement for prospective new businesses in the County.
		1.2 Assist existing business with sewer and water extensions that will facilitate their retention and/or expansion.
		6.4 Actively work with regional entities and local colleges and universities to develop and promote regional strategies and plans that will benefit the economic well-being of York County, the Virginia Peninsula, and Hampton Roads.
		6.5 Foster mutual communication and cooperation among the County, the IDA, and the York County business community.

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ENVIRONMENT		
OVERALL GOAL		
To preserve and enhance the natural and manmade environment of York County while permitting development to occur in accordance with the Comprehensive Plan.	<i>Rewritten in the form of a Vision statement.</i>	There should be a balance between York County's natural and built environment that positively contributes to the quality of life of both current and future generations.
		NEW RECOMMENDATION
		2. Enhance public awareness and understanding of the importance of environmental conservation and preservation.
		2.1. Consider using public properties, such as parks and watershed areas, as living laboratories to educate school children about environmental conservation and preservation with such activities as nature hikes and observations, environmental experiments, wetlands delineation activities, etc.
AIR		
A. OBJECTIVE		
Maintain air quality by ensuring compliance with applicable air quality standards.	<i>Revised to emphasize that the actual Goal is to improve air quality.</i>	3. Improve air quality.
B. IMPLEMENTATION STRATEGY		
Continue the County's active participation on the Hampton Roads Air Pollution Control District Committee.	<i>No substantive change.</i>	3.1 Continue to actively participate in all air pollution committees and boards deemed necessary by the Board of Supervisors, such as the Hampton Roads Air Pollution Control District Committee.
		NEW RECOMMENDATIONS
		3.2 Continue to discourage the recruitment of industries that emit high levels of air pollutants.
		3.3 Pursue activities and strategies, including public education efforts, that decrease air pollutants within the Hampton Roads region.
		3.4 Prohibit the open burning of leaves and yard debris in proximity to homes and other structures.
		3.5 Promote alternative modes of transportation that do not rely on single-occupant vehicles, such as mass transit, car-pooling, ride-sharing, bicycling, and walking.
LAND		
A. OBJECTIVES		
1. Ensure that land use densities/intensities, site design and development occur in recognition of the ability of the land to support such development without	<i>No substantive change.</i>	4. Ensure that land development occurs in recognition of the ability of the land to support such development without environmental degradation.

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environmental degradation.		
2. Encourage land use management and development practices which contribute to the perception of a “rural” character in the County including : the retention of natural physical features; the retention of forest and woodland areas, both along roadways and within developed areas; the protection of existing agricultural areas; the protection or installation of landscaping and open space areas at strategic, highly visible locations throughout the County.	<i>Discussion of rural character has been moved to the Vision statement for <u>Land Use</u>. The remainder has been revised for simplicity and incorporated into various Goals and Strategies.</i>	4.3 Retain natural physical features, forests, and woodland areas throughout the development process.
3. Encourage the provision of open space within developing areas for purposes of recreation, aesthetics, wildlife habitat, and the preservation of ecologically sensitive areas including groundwater recharge areas.	<i>No substantive change.</i>	5. Maintain open space requirements within developing areas for purposes of recreation, aesthetics, wildlife habitat, and the preservation of ecologically sensitive areas.
4. Promote site design and land development that blends appropriately with natural features and terrain.	<i>No substantive change.</i>	4.1 Promote site design and development that blends appropriately with natural features and terrain.
B. IMPLEMENTATION STRATEGIES		
1. Establish tree preservation requirements for all new residential development.	<i>No substantive change.</i>	4.4 Maintain tree preservation requirements for all new development.
2. Encourage the installation of “street trees” along new roads.	<i>Moved to <u>Land Use</u> element.</i>	7.3 Require the installation of “street trees” along new roads. (<u>Land Use</u>)
3. Require all new development and subdivisions to have underground utilities and encourage the eventual placement of existing distribution and service lines underground.	<i>No substantive change. Moved to <u>Utilities</u> element and divided into three specific Strategies.</i>	1.1 Continue to require the underground installation of all utilities in new residential, commercial, and selected industrial development. (<u>Utilities</u>)
		1.3 Pursue enabling legislation to include the costs of replacing aboveground utilities with underground utilities in concert with VDOT road projects. (<u>Utilities</u>).
		1.4 Designate priorities for the replacement of aboveground utilities with underground utilities with a primary focus on scenic roadways and tourist areas, funded by annual appropriations through the Capital Improvements Program. (<u>Utilities</u>).
4. Encourage the use of conservation easements as a means to protect and preserve areas with desirable or sensitive environmental or aesthetic qualities. Particular emphasis and importance should be placed	<i>No substantive change.</i>	5.1 Continue to encourage the use of conservation easements as a means of protecting and preserving areas with desirable or sensitive environmental or aesthetic qualities, especially shoreline and groundwater recharge areas.

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on shoreline areas.		
5. Encourage the preservation of natural wooded areas or the installation of new landscaping along the edges of major roads. Such roads are often referred to as “greenbelts” and can make a positive contribution to the appearance of a highway corridor by keeping them “green” - thus contributing to the preservation and enhancement of “rural” character.	<i>Deleted to eliminate redundancy with Strategy 10.1 of the <u>Transportation</u> element and Strategy 7.2 in the <u>Land Use</u> element.</i>	
6. Establish Environmental Quality Areas to protect areas that have been identified as having significant wildlife/plantlife. Upon completion of the Natural Resource Inventory by the Division of Natural Heritage, examine and establish the best regulatory means available for protecting natural resources areas.	<i>Deleted to eliminate redundancy with Strategy 1.1 below.</i>	
7. Require that development plans identify environmental constraints and opportunities and show how environmental impacts will be mitigated.	<i>No substantive change.</i>	1.2 Continue to require that development plans identify environmental constraints and opportunities and show how environmental impacts will be mitigated.
8. Continue participation under the Federal Flood Insurance Program and improve County regulations to meet the Community Rating System criteria, which would enable flood insurance participants to become eligible for certain reductions in premiums.	<i>Deleted.</i>	
		NEW RECOMMENDATIONS
		4.2 Consider working with neighboring localities through the Hampton Roads Planning District Commission to develop a specific carrying capacity model.
WATER		
A. OBJECTIVES		
1. Preserve and protect environmentally sensitive areas and natural resources from the avoidable impacts of land use activities and development. Areas deserving special attention include coastal areas, tidal and certain non-tidal wetlands, lands within the 100-year floodplain,	<i>Divided into a Goal and Strategy to apply generally to environmentally sensitive areas and not strictly to water.</i>	1. Preserve and protect environmentally sensitive areas and natural resources from the avoidable impacts of land use activities and development.

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prime forest and agricultural lands, mature trees, highly permeable and erodible soils, and groundwater - with particular emphasis given to York County estuaries of the Chesapeake Bay.		1.1. Continue to implement special development regulations to protect natural resources areas, including low-lying areas, areas with steep slopes, tidal and nontidal wetlands, Chesapeake Bay Preservation Areas, areas identified by the Virginia Department of Conservation and Recreation, Division of Natural Heritage in the Natural Areas Inventory of the Lower Peninsula of Virginia, and areas containing hydric or shrink-swell soils.
2. Strictly enforce appropriate methods of construction early in the development process to control sedimentation, pollutant-loading and stormwater runoff, especially where development takes place in proximity to rivers, inlets and other bodies of water.	<i>No substantive change.</i>	7.1 Continue to enforce appropriate methods of construction early in the development process to control sedimentation, pollutant-loading, and stormwater runoff, especially where development takes place in close proximity to water bodies.
3. Ensure the conservation and enhancement of adequate and safe future water supply areas, both above and below ground.	<i>No substantive change.</i>	6. Ensure the conservation and enhancement of adequate and safe future water supply areas.
4. Protect coastal wetlands, marshes, rivers, inlets and other bodies of water from destruction, disturbance, pollution and siltation associated with land development in order to maximize their future use and enjoyment.	<i>No substantive change.</i>	4. Protect coastal wetlands, marshes, rivers, inlets, and other bodies of water from degradation associated with land development.
B. IMPLEMENTATION STRATEGIES		
1. Upon completion of the Stormwater Management Plan, require all new development in the County to maintain no net increase in pollutant loadings, especially in proximity to drinking water reservoirs.	<i>Deleted to eliminate redundancy with Goal #7 and Strategy #7.1 in the <u>Utilities</u> element.</i>	
2. Develop a groundwater management handbook to provide a detailed set of guidelines, standards, and procedures for protecting groundwater.	<i>Deleted.</i>	
3. Continue the County's participation in the Regional Raw Water Study Group.	<i>Moved to <u>Utilities</u> element.</i>	9.5. Continue the County's participation in the Regional Raw Water Study Group. (<i>Utilities</i>)
4. Develop a County policy of notifying the Corps of Engineers of proposed development whenever the presence of nontidal wetlands is suspected.	<i>Deleted – Strategy has been completed.</i>	
		NEW RECOMMENDATIONS
		6.1. Identify potential sources of

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			groundwater and surface water contamination and develop mitigation plans and procedures.
			6.2. Work with the Health Department to develop a plan by 1998 for enforcing the periodic pump-out of septic tanks.
			7. Ensure existing and proposed public and private access facilities (docks and piers) do not have a negative impact on water quality.
			7.2. Adopt policies to implement the Hampton Roads Planning District Commission (HRPDC) <u>Regional Shoreline Study</u> .
NOISE			
A. OBJECTIVE			
Improve the quality of life by limiting noise associated with nonresidential development.		<i>No substantive change.</i>	9. Limit noise associated with nonresidential development.
B. IMPLEMENTATION STRATEGIES			
1. Special noise impact areas should be designated around: <ul style="list-style-type: none"> Newport News-Williamsburg International Airport Virginia Power Plant, Yorktown Interstate 64 		<i>Revised.</i>	9.1. Employ Zoning Ordinance performance standards and other regulatory controls where applicable to minimize noise impacts of nonresidential uses on residential areas.
2. Work with the Peninsula Airport Commission to install noise baffles around the runways as a means of reducing airport noise.		<i>Deleted.</i>	
CITIZEN INVOLVEMENT			
A. OBJECTIVE			
Attempt to enhance the County's natural and built environment through contacts with organizations involved in the encouragement of environmental and resource preservation.		<i>Deleted.</i>	

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HOUSING		
A. OVERALL GOAL		
Promote decent, safe, sanitary, affordable and aesthetically pleasing housing for all County residents.	<i>No substantive change—reworded in the form of a Vision statement.</i>	Decent, safe, sanitary, and affordable housing should be available to all County residents.
B. OBJECTIVES		
1. Encourage residential development at densities which recognize the inherent capacity of the land and which do not cause or contribute to environmental degradation.	<i>Rewritten as a general strategy in the <u>Land Use</u> element applicable to all types of development.</i>	2. Maintain a balanced diversity of land uses, with minimal conflict among different uses, in recognition of the physical characteristics of the County and the inherent capacity of the land to host different types of uses. (<u>Land Use</u>)
2. Provide opportunities for a range of residential densities to be guided to specific areas of the County depending on the availability of public utilities and facilities and the presence of environmental constraints.	<i>Objectives #2, #3, and #4 are rewritten as a general strategy in the <u>Land Use</u> element applicable to all types of development.</i>	2.1 Apply the appropriate land use density (units per acre) and intensity (type of use) to each parcel in the County based on the property's physical characteristics and the present or planned availability of public infrastructure, facilities, and services. (<u>Land Use</u>)
3. Guide residential development to those areas where public infrastructure is in place and has the excess capacity to accommodate growth and ensure the continuation of adequate levels of service.		
4. Discourage residential development in those areas where existing utilities, facilities, and roads are inadequate and where logical expansion of such infrastructure is not possible.		
5. Promote low- and medium-density residential development to preserve the overall character of the County and to prevent the overburdening of utilities, facilities, services, etc.	<i>Reworded as a general Vision Statement, applying to all types of development, for the <u>Land Use</u> element.</i>	Land use in the County should contribute to the perception of a rural character in accordance with the carrying capacity of the land and present and planned infrastructure. (<u>Land Use</u>)
6. Provide opportunities for a variety of housing types and arrangements so that suitable housing will be available to households of a wide range of income levels.	<i>Divided into a Goal and a Strategy</i>	1. Make suitable housing available to households of a wide range of income levels.
		1.1 Provide opportunities through zoning for a variety of housing types.
7. Protect residential areas from encroachment by incompatible land uses which could adversely affect the quality of the residential environment.	<i>No substantive change.</i>	2. Protect residential areas from encroachment by incompatible land uses that adversely affect the quality of life.
8. Promote the upgrading of housing conditions by encouraging maintenance and upkeep of housing by the owner.	<i>Changed from an action statement to a general Goal.</i>	3. Prevent neighborhood blight and housing dilapidation.
9. Maintain and enhance the County's aesthetic quality by	<i>Reworded as a Strategy</i>	4.1 Continue to require open space, recreation space, trees, and

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requiring open space, trees and landscaping in all new residential development.		landscaping in all new residential development.
10. Provide opportunities for manufactured housing in appropriate locations and subject to appropriate development regulations.	<i>Deleted.</i>	
11. Provide opportunities for mixtures of different types of housing (i.e., detached, attached, multi-family) in a single residential development.	<i>Revised.</i>	5. Continue opportunities for mixtures of different types of housing (i.e., detached, attached, multi-family) in a single residential development.
12. Provide opportunities for mixtures of residential, commercial, office and limited industrial uses within a single development.	<i>No substantive change.</i>	6. Continue opportunities for mixtures of residential, commercial, office, and limited industrial uses within a single development.
13. Encourage the provision of commonly-owned open space/recreation space in new residential developments.	<i>Deleted to eliminate redundancy with Community Facilities element.</i>	7.8 Promote the provision of open space and recreational facilities in new residential development. (<i>Community Facilities</i>)
14. Encourage the provision of safe, convenient pedestrian circulation and access (including sidewalks) and adequate street lighting in new residential development commensurate with the density of development.	<i>Broadened to include additional design elements.</i>	4.2 Review the Subdivision Ordinance to identify opportunities to help create a sense of community through the use of residential development design elements, such as sidewalks and streetlights.
		NEW RECOMMENDATIONS
		4. Promote the development of pleasant, attractive living environments.
		4.3 Revise the Zoning Ordinance dimensional standards for residential districts as necessary to eliminate excessive setback requirements.
C. IMPLEMENTATION STRATEGIES		
1. Adopt a new Zoning Map to coincide with established Land Use Plan densities.	<i>Moved to <u>Land Use</u> element</i>	1.2 Revise the Zoning Ordinance and Map as necessary to conform with the <u>2015 Land Use Map. (<u>Land Use</u>)</u>
2. Continue to require, within the County's development ordinances, larger lot size requirements for residential properties where public utilities are not available.	<i>Reworded and moved to <u>Land Use</u> element.</i>	1.3 Continue to require lower residential development densities in areas where public utilities are not available. (<u>Land Use</u>)
3. Utilize and expand, as deemed necessary, the "Affordable Housing Incentive Provisions" and other planned development opportunities for a variety of housing types and arrangements so that suitable housing will be available to households of a wide range of income levels.	<i>No substantive change.</i>	1.2 Use the "Affordable Housing Incentive Provisions" and other development opportunities of the Zoning Ordinance that promote cost-containment.

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4. Maintain a site inventory of vacant residential properties as a guideline for prospective developers.	<i>Deleted.</i>	
5. Continue, through the County's Division of Housing and Neighborhood Revitalization, to utilize federal and state housing subsidies, grants, loans, and tax savings programs to the fullest extent possible in order to meet the needs of lower income residents.	<i>No substantive change.</i>	1.3 Continue to use federal and state housing subsidies, grants, loans, and tax savings programs to help meet the housing needs of lower income residents.
6. Support research efforts of the state and other agencies to identify and implement new cost-saving methods to finance the construction and/or maintenance of infrastructure so as to facilitate the provision of affordable housing.	<i>Deleted.</i>	
7. Continue to require higher density development to provide landscaped transitional buffers adjacent to residential developments to ensure screening from incompatible surrounding land uses.	<i>Reworded for clarity and brevity.</i>	2.1 Continue to require landscaped transitional buffers between residential development and incompatible land uses.
8. Develop a housing inventory to include the condition, age, and assessed value of the units as a monitoring mechanism for future planning for rehabilitation, replacement, and/or demolition of dilapidated structures.	<i>This strategy was deemed unnecessary and therefore deleted.</i>	
9. Provide educational programming to encourage the maintenance and repair of existing renter and owner-occupied housing to prevent deterioration.	<i>This strategy was deleted because such programming is already available through the Federal government and other sources.</i>	
10. Require the removal of substandard units that cannot feasibly be rehabilitated.	<i>Deleted – This is already being done.</i>	
11. The demolition of low-cost rental housing, without adequate assurance that suitable equivalent replacement units are or will shortly be made available, should be discouraged.	<i>Deleted.</i>	
12. Continue to support and utilize private and public rehabilitation programs whenever feasible to assist low and moderate-income households in maintaining their properties.	<i>No substantive change.</i>	3.1 Continue to support and use private and public rehabilitation to assist low- and moderate-income households in maintaining their properties.
13. In conjunction with community and neighborhood groups and associations, develop and	<i>No substantive change.</i>	3.2 Expand and support neighborhood watch and clean-up programs.

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support neighborhood watch and clean-up programs.		
14. Update the Zoning and Subdivision Ordinances to require open space, trees, recreation space and landscaping in all new residential development and to encourage the use of clustering and other innovative community design techniques which provide for the permanent retention of open space values.	<i>This strategy has been completed and has been reworded accordingly.</i>	4.4 Continue to encourage the use of clustering and other innovative community design techniques that provide for the permanent retention of open space values.
15. Continue to permit manufactured homes and manufactured home parks within specific areas zoned for such.	<i>Deleted.</i>	
16. Review plans to permit mixed-use opportunities that would allow the mixing of residences with other land uses, when feasible and when the location is appropriate.	<i>Reworded for clarity. The strategy as it appears in the 1991 Plan is incomprehensible.</i>	6.1 Encourage mixed-use development that allows the mixing of residences with other land uses within a single development under a coherent overall master plan.
17. Develop and implement density bonus provisions which provide developers with incentives to provide design excellence in new residential development, including such things as more extensive recreational amenities than otherwise required, additional tree retention, dedication of land for public purposes, affordable housing opportunities, and other similar efforts.	<i>Density bonus provisions have since been developed as part of the Open Space (cluster technique) Development performance standards in the Zoning Ordinance. The strategy has been reworded accordingly.</i>	4.5 Continue to implement density bonus incentives.

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LAND USE		
OVERALL GOALS		
1. Enhance and protect the current "rural" character of the County by ensuring that development which does occur is in accordance with the rural character and is consistent with the carrying capacity of the land and the existing and planned utility systems, transportation networks, drainage facilities, community facilities and services, the presence of environmental constraints, and existing development patterns.	<i>No substantive change—reworded in the form of a Vision statement.</i>	Land use in the County should contribute to the perception of a rural character in accordance with the carrying capacity of the land and present and planned infrastructure.
2. The Land Use element is intended to guide and encourage coordinated, adjusted and harmonious development of the County which will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the citizens of York County.	<i>Deleted to eliminate redundancy with Vision statement and Goal #2.</i>	
A. OBJECTIVES		
1. Enhance the well-being of York County citizens and the neighborhoods and the communities within which they live through implementation of the Comprehensive Plan.	<i>This strategy was deemed unnecessary and therefore deleted. (statement is obvious)</i>	
2. Encourage land use which contributes to the perception of a rural character in the County including: the retention of natural physical features; the retention of forest and woodland areas, both along roadways and within developed areas; the protection of existing agricultural areas; the protection or installation of landscaping and open space in all development; and the protection or enhancement of open space areas at strategic, highly visible locations throughout the County.	<i>Deleted to eliminate redundancy with various Goals and Strategies. See Objective #2 of the <u>Environment</u> element.</i>	
3. Provide opportunities for a balanced diversity of land uses within the County arranged in such a manner as to minimize conflicts between various land uses.	<i>Revised and combined into a single Objective</i>	2. Maintain a balanced diversity of land uses within the County, with minimal conflicts among different uses, in recognition of the physical characteristics of the County and the inherent capacity of the land to host different types of uses
4. Recognize the physical characteristics of the County and acknowledge the inherent capacity of the land to host different types of land uses at appropriate densities and intensities.		

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5. Plan for development of appropriate land use types and densities based on the present or planned availability of adequate public utilities, schools, roads and highways, police and fire protection, recreational facilities, etc.	<i>Revised for specificity</i>	2.1 Apply the appropriate land use density (units per acre) and intensity (type of use) to each parcel in the County based on the property's physical characteristics and the present or planned availability of public infrastructure, facilities, and services.
6. Consider development patterns and plans established in adjoining jurisdictions when making local land use decisions and designations.	<i>No change</i>	3. Consider development patterns and plans established in adjoining jurisdictions when making local land use decisions and designations.
7. Preserve "open space" throughout the County such that these areas will become an integral part of the community.	<i>No change</i>	4. Preserve open space throughout the County such that these areas will become an integral part of the community.
8. Preserve and protect certain lands that are proximate to the shoreline and which have intrinsic value for the protection of water quality in the Chesapeake Bay and its tributaries.	<i>No change</i>	5. Preserve and protect certain lands near the shoreline that have intrinsic value for the protection of water quality in the Chesapeake Bay and its tributaries.
9. Promote a desirable visual environment.	<i>Deleted.</i>	
10. Enhance standards for the preservation and protection of trees.	<i>Updated, revised, and moved to <u>Environment</u> element</i>	4.4. Maintain tree preservation requirements for all new development. (<u>Environment</u>)
11. Preserve, protect and enhance cultural, environmental, and historic areas.	<i>No change</i>	6. Preserve, protect, and enhance cultural, environmental, and historic areas.
12. Prevent the expansion of existing development which is <u>not</u> in character with surrounding development.	<i>Deleted because of redundancy in this element or in one of the other elements</i>	
13. Safeguard the tax base and provide opportunities for continued economic stability.	<i>Deleted to eliminate redundancy with <u>Economic Development</u> element</i>	
14. Encourage public and private coordination of efforts and activities which shape land development in an effort to lower the cost of development and promote sufficient land use while also protecting the rural character of the County.	<i>Deleted because of redundancy in this element or in one of the other elements</i>	
B. IMPLEMENTATION STRATEGIES		
1. Develop land use strategies and designations which will provide for a maximum "build-out population" of the County of <u>no more than</u> 80,000 persons.	<i>Revised to reflect updated "build-out population" calculations as a result of the comprehensive rezoning of the County in 1995.</i>	1. Provide for orderly residential growth that would allow the County population to reach a maximum of approximately 80,000 persons.
2. Establish maximum residential densities as follows: <ul style="list-style-type: none"> • <u>Low Density</u> - 1 dwelling unit per acre • <u>Medium Density</u> - 1.75 dwelling units per acre • <u>High Density</u> - 3.0 dwelling units per acre • <u>Multi-Family</u> - 10 dwelling units per acre 	<i>No change.</i>	1.1 Establish maximum residential densities as follows: <p><u>Single-Family:</u> Low Density- 1.0 dwelling unit per acre Medium Density-1.75 dwelling units per acre High Density- 3.0 dwelling units per acre</p> <p><u>Multi-Family:</u> 10.0 dwelling units per acre</p>
3. In evaluating the appropriateness of	<i>Revised.</i>	2.2 In evaluating rezoning and use permit

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rezoning and use permit requests, consider, through a fiscal impact analysis process, the anticipated impact of the proposed development on utility, transportation, public facility, school and other systems, as well as the potential for encouraging additional residential development.		requests, consider the potential impact of the proposed development on public facilities, services, and infrastructure as well as potential fiscal impacts.
4. Use planning, zoning, and utility extension policies to guide specific types and densities of development to specific areas of the County able to handle the impacts.	<i>No substantive change</i>	2.3 Guide specific types and densities of development to specific areas of the County through planning, zoning and utility extension policies.
5. Use available tools and techniques to defer all or part of permitted development until such time as adequate public infrastructure is in place to support the development.	<i>Revised for greater specificity</i>	2.4 Use all available tools and techniques to defer all or part of permitted development until such time as adequate public infrastructure is in place to support the development, and seek enabling legislation to expand the County's authority in this regard.
6. Use the capital improvement programming process to plan utility and transportation network improvements which will guide industrial/commercial development to areas designated for such development both newly developing areas or blighted areas in need of revitalization.	<i>No substantive change</i>	2.5 Use the capital improvement programming process to plan and fund utility and transportation improvements that will guide industrial and commercial development to areas designated for such uses.
7. Establish requirements for "greenbelts" (i.e., natural or newly installed landscaped areas) of appropriate widths to preserve trees and rural vistas along the following highways: <ul style="list-style-type: none"> • Victory Boulevard (Route 171) east of Hampton Highway • Hampton Highway (Route 134) • Route 132 • Route 199 in Lightfoot • Denbigh Boulevard (Route 173) • Fort Eustis Boulevard (Route 105) • The Colonial Parkway is a roadway of rare natural beauty linking historic Yorktown with Colonial Williamsburg and Jamestown. Any development in proximity to this roadway should provide adequate buffers to preserve the vistas from that roadway. • In addition, consideration should be given to adopting various other appropriate measures, including the possibility of a corridor protection standards as enabled by the Code of Virginia, deemed necessary to protect the scenic vistas along the Colonial Parkway. 	<i>Updated</i>	7.2 Maintain greenbelt requirements of appropriate widths to preserve trees and rural vistas along the following highways: <ul style="list-style-type: none"> • Victory Boulevard (Route 171) east of Hampton highway • Hampton Highway (Route 134) • Route 132 • Denbigh Boulevard (Route 173) • Fort Eustis Boulevard (Route 105) and extension
8. Use conservation easements to preserve open space and provide	<i>Revised to include the cluster technique as a desirable tool</i>	4.1 Use conservation easements, clustering, and other techniques to preserve open

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significant buffers.	<i>for preserving open space.</i>	space and provide significant buffers.
9. Where all or a portion of a new residential development is located within a Resource Management/Protection Overlay District, consider establishing provisions to require the use of cluster development techniques.	<i>Updated and revised.</i>	5.1 Encourage the use of cluster development techniques for all new residential development located within the Environmental Management Area Overlay District.
10. Encourage "compatibility zones" along the boundaries of neighboring jurisdictions.	<i>Updated</i>	3.1 Maintain "compatibility zones" in areas adjoining jurisdictional boundaries to provide for comparable zoning and development patterns
11. Encourage the visual enhancement of the County's commercial corridors, and particularly the Route 17 corridor, through the consideration of tools and techniques intended to: <ul style="list-style-type: none"> • preserve and protect existing mature trees; • establish new landscaped areas within the right-of-way as well as within existing and new development; • maximize building setbacks so as to provide opportunities for incorporation of green areas in highly visible areas and the retention of appropriate amounts of green space in the event of right-of-way expansion; • establish appropriate standards to ensure visually attractive signage, display and storage associated with business activity. • Provide for the underground placement of both new and existing utilities 	<i>Revised for specificity, updated, and divided into a Goal and a Strategy.</i>	7. Enhance the visual appeal of the County's major corridors, particularly the Route 17 corridor. 7.1 Use the following tools to improve the Route 17 Corridor: <ul style="list-style-type: none"> • preserve and protect existing mature trees to the extent feasible • establish new landscaped areas within the right-of-way as well as within existing and new development • maximize building setbacks so as to provide opportunities for incorporation of green areas in highly visible areas and the retention of appropriate amounts of green space in the event of right-of-way expansion • establish appropriate standards to ensure visually attractive signage, display, and storage associated with business activity • encourage the underground placement of new utilities and require the underground placement of existing utilities
12. Encourage conversion of existing blighted properties into visually pleasing and environmentally acceptable uses.	<i>Updated</i>	7.5 Encourage the adaptive reuse of existing blighted properties
13. Extend the landscaping plan prepared by the City of Williamsburg for Second Street into York County.	<i>Updated and revised</i>	7.4 Extend the streetscape improvements made by the City of Williamsburg along Second Street into York County.

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14. Preserve and protect the historic and architectural character of Yorktown through the adoption of an historic zoning district classification as enabled by the Code of Virginia. Of particular importance is the need to recognize the importance of the Revolutionary War battlefields and acknowledge the importance of the working waterfront to the development of Yorktown.	<i>Updated and revised. Strategies added to reflect the creation in 1995 of the HRM and TCM overlay districts.</i>	6.1 Implement an historic zoning district classification as enabled by the <u>Code of Virginia</u> to preserve and protect the historic and architectural character of Yorktown, with particular attention to the Revolutionary War battlefields and the waterfront.
		6.3 Require the identification of any and all significant historic sites on all subdivision and site plans and, to the extent practical, require the protection of such sites, depending on the extent of their significance, throughout the development process.
		6.4 Maintain higher standards of development at major gateways into historic Yorktown and Colonial Williamsburg, including the Colonial Parkway, Cook Road, Goosley Road, Route 17 north of (Cook Road), Pocahontas Trail, Route 143 west of Queen Creek, Route 132, Bypass Road, and Richmond Road.
15. Work with the Peninsula Airport Commission to modify airport activities which adversely impact existing County residential areas.	<i>Revised and moved to <u>Environment</u> element (Noise)</i>	9.2. Notify Andrews Air Force Base, Maryland and all regional military bases of citizens' concerns and complaints about excessive noise/low altitude operations by White House and military aircraft using Newport News/Williamsburg International Airport. (<i>Environment</i>)
16. Fully implement a Geographic Information System to assist in effective land use planning.	<i>Deleted.</i>	
17. Prepare an annual report which describes and discusses the development activity during the year, including rezonings, use permits, site plans, subdivision, wetlands and land disturbing permits, capital improvements programming and the conformance of this activity with the Comprehensive Plan.	<i>No substantive change</i>	2.7 Prepare an annual report describing the development activity during the year, including land use patterns, rezonings, use permits, site plans, subdivision, wetlands and land disturbing permits, capital improvements programming, and the conformance of this activity with the <u>Comprehensive Plan</u> .

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TRANSPORTATION		
OVERALL GOALS		
Create and promote a transportation network that ensures the safe, efficient, convenient, and cost effective movement of people and goods within the County, between neighboring jurisdictions, and throughout the region. This network should be consistent and compatible with the environmental and economic development goals and objectives of the County. In working to achieve this goal, it is important for the County to continue to participate in regional transportation planning efforts.	<i>Rewritten in the form of a Vision statement.</i>	People and goods should be able to move safely, efficiently, and cost effectively within York County and throughout the region.
AIR		
A. OBJECTIVES		
1. Support the deliberate and coordinated modernization, growth, and development of Newport News/Williamsburg International Airport, but only in such a manner as to minimize the noise impacts and safety concerns on existing County residents.	<i>Reworded for less specificity.</i>	1. Develop on a regional basis an air transportation system in a manner that minimizes the noise impacts and safety concerns on existing County residential areas, while maximizing the economic and transportation service benefits to County citizens.
2. Encourage the long-term planning and development of a major regional airport facility (superport concept).	<i>Deleted</i>	
B. IMPLEMENTATION STRATEGIES		
1. Investigate the feasibility of securing voting representation on the Peninsula Airport Commission. It is critical that the future of the airport be guided in such a manner as to minimize the airport's negative impacts on the County while maximizing the positive aspects of its location. The best way to accomplish this is through mutual trust and cooperation between the County and the Airport Commission.	<i>No substantive change. Strategy 1.3 has been added to address the need for airport/land use compatibility.</i>	1.2 Investigate the feasibility of securing voting representation on the Peninsula Airport Commission.
		1.3 Ensure that land use decisions affecting areas adjacent to Newport News/Williamsburg International Airport take into consideration impacts on both the County and the airport.
2. Establish an airport advisory committee to coordinate the County's position on all air/airport related issues and plans.	<i>Deleted.</i>	
3. Investigate the feasibility of establishing a high-speed rail link between the County and Richmond International Airport to serve both air passenger and air cargo needs.	<i>Reworded as a stronger statement.</i>	1.1 Advocate the development of an enhanced regional air transportation network based around tying together the existing airport capacity in eastern Virginia with a high-speed rail system that links Newport News/Williamsburg International Airport with Richmond International and

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		Norfolk international airports.
BIKEWAYS		
A. OBJECTIVES		
1. Develop a bikeway network and programs facilitating safe bicycle transportation within York County and between York County and neighboring localities.	<i>As written, Objective #1 is actually an Implementation Strategy, when the objective to be achieved is to increase bicycle ridership. The objective of doubling the number of bicycle trips mirrors the national goal set forth in <u>The National Bicycle and Walking Study</u> published by the Federal Highway Administration.</i>	2. Double the number of bicycle trips for purposes of transportation as well as recreation both within York County and between the County and neighboring jurisdictions.
2. Integrate bikeway development into road plans when funding is available.	<i>Deleted to eliminate redundancy with Implementation Strategy #5 below.</i>	
3. Encourage the provision of bikeways and bicycle facilities, including bike racks, in multi-family residential developments and commercial shopping centers.	<i>Broadened to apply to all commercial districts, not just shopping centers.</i>	2.3 Encourage the provision of bikeways and facilities, including bike racks, in multi-family residential developments and commercial shopping centers and districts.
B. IMPLEMENTATION STRATEGIES		
1. In cooperation with neighboring localities, regularly update the regional bicycle route plan contained in this Plan.	<i>Updated.</i>	2.1 Develop and regularly update a regional bikeway network and programs facilitating safe bicycle transportation.
2. Install signage for and publicize inter- and intra-County bike routes.	<i>No substantive change.</i>	2.4 Install directional signs for and publicize inter- and intra-County bike routes.
3. Develop neighborhood and/or community bicycle networks to safely connect residential areas with nearby commercial and public-use areas.	<i>Reworded to provide for bicycle travel among neighboring residential subdivisions.</i>	2.5 Develop neighborhood and community bicycle networks to safely connect residential areas with nearby commercial and public use areas and with neighboring subdivisions.
4. Incorporate provisions within current development regulations and ordinances to require bikeway and bicycle-access planning and the construction of appropriate bicycle facilities, including consideration of security and safety, for multi-family residential and commercial developments.	<i>Deleted to eliminate redundancy with Objective #3 below.</i>	
5. Require routine consideration of Bikeway construction as part of road construction or reconstruction/widening projects.	<i>No substantive change.</i>	2.2 Integrate bikeway development into road construction and reconstruction/widening projects when funding is available.
6. Establish bicycle registration and an annual safety inspection program as a service to residents in cooperation with bicycle retailers, bicycle enthusiast organizations, and the County.	<i>Deleted.</i>	
7. Provide bicycle law and safety education as a part of the	<i>Reworded – No substantive change.</i>	2.7 Conduct bicycle rider training ranges at schools, fire stations,

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elementary school curriculum. As a part of this effort, the feasibility of establishing bicycle rider training ranges, perhaps at schools or fire stations, should be analyzed.		shopping centers, etc., and provide bicycle law and safety education as set forth in the Standards of Learning.
		NEW RECOMMENDATION
		2.8 Continue support and participation in regional bicycle and pedestrian efforts including the Historic Triangle Bicycle Advisory Committee.
MASS TRANSIT		
A. OBJECTIVES		
1. Promote the development of public transportation services and facilities to accommodate the needs of employment and service sectors in the County.	<i>Revised for specificity.</i>	3. Promote the development of facilities to accommodate van-pooling, ride-sharing, telecommuting, and other transportation demand efforts aimed at the employment and service sectors in the County and the region.
2. Promote the development and subsequent utilization of mass transit to serve heavily traveled and densely populated corridors in the County in order to reduce passenger car loads on such corridors.	<i>No substantive change.</i>	4. Promote the development and subsequent utilization of mass transit to serve heavily traveled and densely populated corridors in the County to reduce passenger car loads on such corridors.
3. Develop parking and convenience facilities to support tour bus traffic and shuttle bus services to and within tourist and convention areas.	<i>Deleted to eliminate redundancy with Implementation Strategy #5 below.</i>	
4. Encourage economical transportation services for senior citizens, handicapped residents, and other special populations.	<i>No substantive change. Divided into a Goal and a Strategy.</i>	5. Encourage economical transportation services for senior citizens, and the physically and sensory challenged.
		5.1 Design cost-effective programs and service targeted at specific market segments where and when appropriate.
B. IMPLEMENTATION STRATEGIES		
1. Jointly develop with adjacent jurisdictions "Park & Ride" programs and transfer sites using existing underutilized parking areas.	<i>No substantive change.</i>	3.1 Jointly develop with adjacent jurisdictions "Park & Ride" programs and transfer sites using existing underused parking areas.
2. Establish, in conjunction with an existing transit provider, at least one work destination or fixed route as a pilot program for a minimum three year period.	<i>This Implementation Strategy was completed, and, after three years, the transit service was discontinued because of low ridership. The Implementation Strategy was revised to indicate that express bus service is still a worthy goal but that it must be cost-effective.</i>	4.3 Continue to analyze the feasibility of implementing express bus service along congested corridors in the County in a cost-effective manner.
3. Establish an incentive system (perhaps in concert with major employers) and a public	<i>Updated.</i>	5.1 Continue to offer reduced parking requirements as an incentive for developers to incorporate into

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awareness program for "Park & Ride" use, car pooling, van pooling, etc.		development plans transportation demand management practices that encourage alternative modes of transportation such as van-pooling, car-pooling, bicycle and pedestrian commuting, etc.
4. Investigate the feasibility of establishing a high-speed rail link between the County and Richmond International Airport to serve both air passenger and air cargo needs.	<i>No substantive change. Specific Strategy added to reflect the County's participation in the CSX Corridor Major Investment Study.</i>	4.1 Investigate the feasibility of establishing high-speed rail links between the County, Newport News/Williamsburg, Norfolk, and Richmond International Airport to serve both air passenger and air cargo needs. 4.2 Participate in feasibility studies analyzing light rail opportunities along the CSX corridor.
5. Initiate cooperative (private-public) funding ventures to support tour bus services between Yorktown and other visitor oriented areas and attractions in Hampton Roads. The first priority should be to support regular tour bus services within the Historic Triangle.	<i>No substantive change – Specific Strategy added to reflect the establishment of the R&R Visitor Shuttle service in 1997.</i>	4.4 Initiate cooperative funding ventures to support tour bus services between Yorktown and other visitor oriented areas and attractions in Hampton Roads with primary emphasis on establishing regular tour bus services within the Historic Triangle. 4.5 Participate in and financially support for no less than three years the Williamsburg Area Visitor Shuttle Bus.
RAILWAYS		
OBJECTIVES		
1. Encourage an expansion of rail passenger services to and throughout the Peninsula commensurate with demand.	<i>Revised for specificity.</i>	6. Expand rail passenger service to and throughout the Peninsula.
2. Exploit, upgrade and extend existing rail linkages in York County to promote industrial and warehousing uses.	<i>No change.</i>	7. Exploit, upgrade and extend existing rail linkages in York County to promote industrial and warehousing uses.
3. Explore, in concert with the Federal Government, the joint modernization and use of the Cheatham Annex spur.	<i>Deleted to eliminate redundancy with Implementation Strategy #3 below.</i>	
B. IMPLEMENTATION STRATEGIES		
1. Regionally develop expanded passenger rail services throughout the Peninsula commensurate with demand. This includes consideration of schedules, frequency, facilities, and rolling stock.	<i>No substantive change.</i>	6.1 Regionally develop expanded passenger rail services – including consideration of schedules, frequency, facilities, and rolling stock – throughout the Peninsula.
2. Perform preliminary engineering including cost estimates, for the construction of rail spurs which would serve potential industrial, recycling, and warehousing locations adjacent to existing or logical extensions of rail lines in the County. These would be used to assist in the marketing of York	<i>Deleted.</i>	

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County to potential economic development clients requiring rail served sites.		
3. Determine, in concert with the U.S. Navy, the feasibility of modernizing and using the Cheatham Annex spur line to serve privately held industrial property adjacent to it. If determined feasible, preliminary engineering for such modernization should be performed.	<i>No change. This Strategy also appears in the Economic Development element.</i>	7.2 Determine, in concert with the U.S. Navy, the feasibility of modernizing and using the Cheatham Annex spur line to serve privately held industrial property adjacent to it. If determined feasible, preliminary engineering for such modernization should be performed.
ROADWAYS		
B. OBJECTIVES		
1. Develop facilities and strategies to reduce traffic congestion on Route 17 at critical times.	<i>Revised to refer generally to all major County arteries.</i>	8. Reduce peak-hour traffic congestion on major County arteries.
2. Annually establish priorities and standards for the improvement and expansion of existing roadways through the CIP and VDOT Six-Year Plan process.	<i>Revised to indicate that the model in the model is meant to provide guidance for prioritizing road improvement projects.</i>	8.1 Annually establish priorities and standards for the improvement and expansion of existing roadways through the CIP and VDOT Six-Year Plan process using the prioritization model contained within this Plan.
3. Develop roadway network plans to support existing and emerging residential, commercial, and industrial development patterns.	<i>No change.</i>	8.3 Develop roadway network plans to support existing and emerging residential, commercial, and industrial development patterns.
4. Limit the numbers and types of direct driveway access to the roadway network.	<i>No substantive change.</i>	8.4 Limit the numbers and types of direct access to the roadway network.
5. Encourage residential development patterns which provide direct driveway access from individual units to local streets and not to collector and arterial roadways.	<i>No substantive change.</i>	8.5 Encourage residential development patterns that provide direct driveway access from individual units to local streets and not to collector and arterial roadways.
6. Promote the interconnection of subdivision street systems to allow local movement without the necessity of utilizing collector and arterial roads and to aid in the provision of services to the lots within the subdivisions.	<i>Revised to reflect changes in the Subdivision Ordinance adopted in 1995 pertaining to the interconnection of subdivision streets.</i>	8.8 Require the interconnection of subdivision street systems for use by bicyclists, pedestrians, emergency vehicles, and – where such interconnection will not encourage “cut-through” traffic by people living outside the subdivisions – automobiles.
7. Promote the beautification of roadways in the County, especially commercial and tourist corridors.	<i>Deleted to eliminate redundancy with Implementation Strategy #7 below.</i>	
8. Install street lighting along heavily traveled corridors, at critical intersections, within medium and high density residential areas, in office and industrial parks, and at other appropriate locations in the County.	<i>Deleted to eliminate redundancy with Implementation Strategy #6 below.</i>	
9. Promote roadway safety.	<i>Revised for specificity.</i>	9. Reduce the number and severity of

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		accidents on York County's roadways
10. Ensure that roadway development is sensitive to environmental and cultural resources.	No substantive change.	10. Promote roadway development that is sensitive to environmental and cultural resources.
11. Develop and enhance capabilities to respond to vehicular accidents, especially those involving hazardous materials, on roadways within the County.	No substantive change.	9.6 Enhance capabilities to respond to vehicular accidents, including those involving hazardous materials, on County roadways.
12. Coordinate and cooperate with neighboring jurisdictions in planning and developing roadway systems.	No change.	8.6 Coordinate and cooperate with neighboring jurisdictions in planning and developing roadway systems.
13. Establish standards for limited access roadways within the County.	Deleted – Objective has been met.	
14. Designate appropriate roadway corridors for the establishment or maintenance of greenbelts and scenic easements.	Deleted – Objective has been met.	
C. IMPLEMENTATION STRATEGIES		
<p>1. Develop a methodology for prioritizing improvement and expansion of existing roadways and the construction of new roads. Factors to be considered include current and future traffic volumes, roadway capacity, accident rates, roadway geometry, and economic development potential. Maintain, through the established Six-Year Plan process, a current general roadway project priority listing. The road projects shown on Map T-9 and listed below should be incorporated as funding availability and other priorities dictate:</p> <p>Interstate System</p> <p>a. I-64--widen to 8 lanes between Route 199 and I-664</p> <p>b. I-64--widen to 6 lanes between Route 33 (West Point) and Route 199</p> <p>c. I-64--Grove Interchange</p> <p><u>Primary System</u></p> <p>a. Route 17 (George Washington Memorial Highway)--widen to 6 lanes divided between Newport News city line and Alexander Hamilton Boulevard.</p>	<p>Deleted – Rather than attempt to provide a lengthy list of every road improvement project that could conceivably be needed in the next twenty years, it was decided that the Strategy (#8.2) should simply reference the model that is used for ranking road improvement priorities. See Objective #2 above.</p>	

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<p>b. Route 17 (George Washington Memorial Highway)--provide 4 lanes on a new or upgraded crossing of the York River in the vicinity of Yorktown. A tunnel is considered to be the optimum choice.</p> <p>c. Route 60 (Pocahontas Trail)--widen to 4-lane divided in vicinity of Grove.</p> <p>d. Route 105 (Ft. Eustis Blvd.)--widen to 4-lane divided section between Newport News city line and Route 17.</p> <p>e. Route 105 (Ft. Eustis Blvd.)--extend 4-lane divided section on a new location between Route 17 and Route 173 at Seaford Road.</p> <p>f. Route 132--widen to 4 lanes divided (and maintain bicycle lanes) between Bypass Road and Route 143.</p> <p>g. Route 134 (Hampton Highway)--widen to 6 lanes divided between Big Bethel Road and the Hampton city line.</p> <p>h. Route 143 (Merrimac Trail)--construct a center turn lane between Armstrong Drive and Tam-O-Shanter Boulevard.</p> <p>i. Route 143 (Merrimac Trail)--widen to 4 lanes divided between Second Street and the Williamsburg city line.</p> <p>j. Route 171 (Victory Blvd.)--widen to 6 lanes divided between Route 17 and Big Bethel Road.</p> <p>k. Route 171 (Victory Blvd.)--widen to 4 lanes divided between Big Bethel Road and the Poquoson city line.</p> <p>l. Route 173 (Denbigh Blvd.)--widen to 4 lanes divided between the Newport News city line and Route 17.</p>		

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<p>m. Route 173 (Goodwin Neck Road)--widen to 4 lanes divided between Route 17 and Seaford Road.</p> <p>n. Route 199--extend a 4-lane divided section on a new location between I-64 and Route 60 including an interchange with relocated Mooretown Road/Pottery Road.</p> <p>o. Route 238 (Yorktown Road)--widen to 4 lanes divided between the Newport News city line and Goosley Road.</p> <p>p. Route 238 (Goosley Road)—widen to 4 lanes divided between Yorktown Road and Route 17.</p> <p>q. Route 238 (Goosley Road)—widen to 2 full lanes (24-foot pavement section) between Route 17 and Cook Road.</p> <p>r. Route 238--relocate Route 238 to a new location between Washington Road at the U. S. Coast Guard RTC and Old-York Hampton Highway at Falcon Road and traversing the boundary of the Colonial National Historical Park. Moore House Road between Cook Road and Washington Road would become a part of the National Park Service tour road system. (Construction of this facility would be the responsibility of the National Park Service and is included at their request).</p> <p>s. York River Crossing--extend a new 4-lane limited-access bridge across the York River from the Route 199/Old York Road intersection to Gloucester County (potential public or private toll-facility).</p> <p>t. Snidow Boulevard Extension--extend a 4-lane divided limited-access roadway on a new location</p>		

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<p>between Route 17 in the vicinity of York High School and the Newport News city line.</p> <p>u. Monticello Avenue Extension--extend a 4-lane divided bridge and approaches between Richmond Road in the City of Williamsburg over the CSX rail right-of-way to the intersection of Waller Mill and Bypass Roads.</p> <p>Secondary System</p> <p>a. Route 600 (Big Bethel Road)--widen to 4 lanes between Hampton Highway and the Hampton city line and improve to two 12-foot lanes with paved shoulders between Hampton Highway and Yorktown Road.</p> <p>b. Route 603 (Mooretown Road)--</p> <p>(1) provide a 4-lane road with center turn lane on a new location between the Route 199/Pottery Road interchange and existing Mooretown Road in the vicinity of Old Taylor Road. This roadway should be initially constructed as a 2-lane road with the full understanding that development in the Lightfoot area will be expected to contribute to construction of the ultimate section.</p> <p>(2) provide a 4-lane road with a center turn lane on a new location between the existing terminus of Kingsgate Parkway and Mooretown Road east of Airport Road. This roadway should be initially constructed as a 2-lane road with the full understanding that development in the Lightfoot area will be</p>		

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<p>expected to contribute to construction of the ultimate section.</p> <p>(3) widen existing Mooretown Road between the two new locations to 4 lanes with turn lanes as necessary and appropriate. Developer participation should be required.</p> <p>c. Route 614 (Showalter Road)--improve pavement section and shoulders.</p> <p>d. Route 620 (Lakeside Drive)—</p> <p>(1) widen to 4 lanes with turn lanes between Showalter Road and Route 17.</p> <p>(2) Improve pavement section and shoulders on remainder of road.</p> <p>e. Route 620 (Link Road)--spot improvements to pavement section and shoulders.</p> <p>f. Route 620 (Oriana Road)--</p> <p>(1) widen to 4 lanes from Burts Road to Route 17.</p> <p>(2) improve pavement section (12-foot lanes) and shoulders between Burts Road and Newport News city line.</p> <p>g. Route 620 (Railway Road)—spot improvements to pavement section and shoulders.</p> <p>h. Route 621 (Dare Road)--</p> <p>(1) widen to 4 lanes between Constitution Drive and Route 17.</p> <p>(2) improve pavement section and shoulders and add turn lanes between Constitution Drive and Lakeside Drive.</p> <p>i. Route 621 (Grafton Drive)--</p>		

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<p>improve pavement section (12-foot lanes), shoulders, drainage, and intersections with Route 17 (both) and Amory Lane.</p> <p>j. Route 622 (Seaford Road)--improve pavement section and shoulders and add turn lanes between Goodwin Neck Road and Back Creek Road (second intersection).</p> <p>k. Route 626 (Shirley Road)--improve pavement section (12-foot lanes) and shoulders to accommodate the relatively high percentage of truck traffic. An alternative roadway alignment leading directly from Seaford Road to the current terminus of Shirley Road would be the preferred alternative if potential environmental issues (wetlands) can be overcome.</p> <p>l. Route 630 (Amory Lane)--improve pavement section and shoulders to accommodate school-oriented traffic for the Grafton Drive School Site.</p> <p>m. Route 630 (Wolftrap Road)—</p> <p>(1) Improve pavement section and shoulders and add turn lanes between Route 17 and Goodwin Neck Road. In addition, improve the Wolftrap Road/Goodwin Neck Road intersection.</p> <p>(2) Improve pavement section (12-foot lanes), railway crossing and shoulders between Hornsbyville Road and the Route 105 Extension.</p> <p>n. Route 632 (Old Wormley Creek Road)—improve pavement section and shoulders.</p> <p>o. Route 634 (Old York-</p>		

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<p>Hampton Highway)-- improve pavement section, drainage, and shoulders and add turn lanes. In addition, reconfigure the intersection with Hornsbyville Road.</p> <p>p. Route 640 (Old York Road)- -widen to 4 lanes and realign between Penniman Road and Route 199.</p> <p>q. Route 641 (Penniman Road)— (1) Widen and realign between intersection with Route 199 and existing new section at Liberty Warehouse.</p> <p>(2) Spot improvements to pavement section and shoulders and add turn lanes between Merrimac Trail and Oak Drive</p> <p>(3) Improve pavement section drainage, shoulders between Oak Drive and Interstate 64.</p> <p>(4) improve pavement section, shoulders and curvature between Route 199 and the Colonial Parkway.</p> <p>r. Route 645 (Airport Road)-- improve pavement section between Rochambeau Drive and Waller Mill Park and add turn lanes at the entrance to the Park.</p> <p>s. Route 646 (Lightfoot Road)— (1) Improve pavement section, shoulder, and drainage and add turn lanes between Richmond Road and Interstate 64.</p> <p>(2) Improve pavement section section, alignment, geometrics, and shoulders between I- 64 and James City County line.</p>		

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<p>t. Route 655 (Allens Mill Road)--improve alignment, pavement section, shoulders, and drainage.</p> <p>u. Route 660 (Baptist Road)—</p> <p>(1) Improve alignment, drainage and pavement section between Old Williamsburg Road and current road terminus.</p> <p>(2) Extend a 2-lane road on a new location from current terminus to Crawford Road. Exact location and alignment subject to negotiation with the NPS.</p> <p>v. Route 704 (Cook Road)—improve pavement section and sight distance and add turn lanes between Goosley Road and Old York-Hampton Highway.</p> <p>w. Route 706 (Yorktown Road)--provide spot intersection and drainage improvements.</p> <p>x. Route 709 (Burts Road)--improve intersections with Route 17 and Oriana Road.</p> <p>y. Route 713 (Waller Mill Road)--widen to 4 lanes with turn lanes between Bypass Road and Kingsgate Parkway.</p> <p>z. Route 716 (Hubbard Lane)—improve pavement section and shoulders between Edale Avenue and the James-York Plaza entrance road and between Percussion Road and the Colonial Parkway.</p> <p>aa. Route 716 (West Queens Drive)--improve pavement section and shoulders between the Colonial Parkway and Huntingdon Road.</p> <p>bb. Route 718 (Back Creek Road)--improve pavement section (12-foot lanes), drainage, shoulders, and</p>		

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<p>intersection alignment between Seaford Road and Shirley Road.</p> <p>cc. Route 718 (Battle Road)--improve intersections with Route 17 and Old York-Hampton Highway.</p> <p>dd. Route 718 (Hornsbyville Road)--</p> <p>(1) improve intersection with Old York-Hampton Highway.</p> <p>(2) improve pavement section, alignment, shoulders, and railroad crossing between Wolftrap Road and Goodwin Neck Road.</p> <p>ee. Route 751 (Ella Taylor Road)--improve intersections with Showalter Road and Route 17.</p> <p>ff. Route 792 (Old Lakeside Drive)--improve pavement surface and geometrics.</p> <p>gg. Route 1123 (Tam-O-Shanter Boulevard)--improve intersection with Merrimac Trail.</p> <p>hh. Route 1203 (York-Warwick Drive)--improve intersection with Route 17.</p> <p>ii. Route 1249 (Siege Lane)--improve intersection with Route 17.</p> <p>jj. Route 1314 (Lakeshead Drive)—improve pavement section and shoulders between West Queens Drive and New Quarter Park.</p> <p>kk. Route F137 (Rochambeau Drive)—spot improvements to pavement section, shoulders, sight distance and intersections between Merrimac Trail and Lightfoot Road.</p> <p>ll. Route F138 (Winchester Road)—reconstruct as a 4-lane boulevard-type of</p>		

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<p>roadway with turn lanes from Penniman Road to end. It is expected that this improvement will be required of the developers of property which will be served by the facility.</p> <p>mm. County wide—improve railroad crossings, pavement markings (including the use of recessed markers on higher volume secondary roads), and signage</p>		
<p>2. Employ facilities and strategies that maximize the application of current and emerging technologies to reduce congestion on Route 17 and other major traffic arteries at critical times. For example, the use of full computer synchronization of traffic signal strings, time and volume based turn prohibitions, and remote sensing of accidents and breakdowns are all worthy of consideration.</p>	<p><i>Updated to reflect advances in technology and the initiation of regional efforts to develop an Intelligent Transportation System (ITS) in Hampton Roads.</i></p>	<p>8.7 Apply Intelligent Transportation Systems (ITS) technology to the Route 17 corridor and seek early deployment funding from the State and Federal Departments of Transportation.</p>
<p>3. Update the County's development regulations and ordinances to include requirements that:</p> <ul style="list-style-type: none"> a. Limit the number and types of direct access points, especially commercial entrances, to major roadways. b. Where feasible, provide direct driveway access only to local streets versus collector or arterial roads. c. Interconnect subdivision streets between compatible land uses to allow movement without use of collector and arterial roads provided that such interconnection can be done safely. d. Set standards for limited access roadways within the County. 	<p><i>Deleted – Strategy has been completed.</i></p>	

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4. Require that traffic issues and concerns be fully addressed as a part of all new development. In this regard, some form of traffic study should be performed for all development proposals. The level of detail and analysis required should be in direct proportion to the anticipated volume of traffic generated by the development.	<i>No substantive change.</i>	9.7 Require that traffic issues and concerns be fully addressed as a part of all new development in the form of a traffic impact analysis.
5. Participate in revenue-sharing matching-fund programs offered by VDOT to the maximum extent fiscally feasible in order to accelerate road construction and improvement projects.	<i>No change.</i>	8.7 Participate in revenue-sharing matching-fund programs offered by VDOT to the maximum extent fiscally feasible in order to accelerate road construction and improvement projects.
6. Install or require installation of street lighting along heavily traveled corridors, at critical intersections, within medium and high density residential areas, in office and industrial parks and at other appropriate locations in the County.	<i>No change.</i>	9.3 Install or require installation of street lighting along heavily traveled corridors, at critical intersections, within medium and high density residential areas, in office and industrial parks and at other appropriate locations in the County.
7. Develop roadway beautification plans for major commercial and tourist corridors in the County. These plans should consider such things as landscaping, lighting, underground utilities, storm drainage, signage, and other similar items. Once developed and approved, such plans should be implemented through annual appropriations in the CIP.	<i>Moved to <u>Land Use</u> element.</i>	6.4 Maintain higher standards of development at major gateways into historic Yorktown and Colonial Williamsburg, including the Colonial Parkway, Cook Road, Goosley Road, Route 17 north of (Cook Road), Pocahontas Trail, Route 143 west of Queen Creek, Route 132, Bypass Road, and Richmond Road. (<u>Land Use</u>)
8. Incorporate into the County's development review process provisions to require that roadway plans be analyzed with specific focus on the preservation and/or restoration of environmental, aesthetic and cultural resources to include the establishment and maintenance of greenbelts and scenic easements, planting of street trees, and landscaping of roadway frontages and medians. In this regard, the provision of buffers containing dense vegetation and trees between residential communities and major roadways should be required as the preferred alternative to structural noise barriers.	<i>No change.</i>	10.1 Incorporate into the County's development review process provisions to require that roadway plans be analyzed with specific focus on the preservation and/or restoration of environmental, aesthetic and cultural resources to include the establishment and maintenance of greenbelts and scenic easements, planting of street trees, and landscaping of roadway frontages and medians. In this regard, the provision of earthen forms and buffers containing dense vegetation and trees between residential communities and major roadways should be required as the preferred alternative to structural noise barriers.

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9.	Develop specific plans for the transportation of hazardous materials within and through the County.	No change.	9.4 Develop specific plans for the transportation of hazardous materials within and through the County.
10.	Continue to provide County-funded law enforcement positions used in traffic law enforcement operations.	No change.	9.1 Continue to provide County-funded law enforcement positions used in traffic law enforcement operations.
11.	Continue to support and promote transportation safety through the York County Transportation Safety Commission.	No substantive change.	9.2 Continue to support and promote the York County Transportation Safety Commission.
			NEW RECOMMENDATION
			9.5 Evaluate the use of traffic calming street designs that could, if determined desirable after careful study, be incorporated into the Subdivision Ordinance for application in residential neighborhoods.
WALKWAYS			
B. OBJECTIVES			
1.	Require pedestrian linkages between residential areas and schools, shopping areas, and recreational, cultural, and/or governmental facilities.	Deleted to eliminate redundancy with Objective #1 below.	
2.	Provide aesthetically appealing sidewalks throughout commercial areas, especially tourist-oriented commercial areas.	Deleted to eliminate redundancy with Objective #3 below.	
3.	Complete existing walkway systems in cooperation with adjoining jurisdictions.	Deleted to eliminate redundancy with Implementation Strategy #3 below.	
4.	Encourage walkways throughout medium and high density residential development.	Deleted to eliminate redundancy with Implementation Strategy #4 below.	
C. IMPLEMENTATION STRATEGIES			
1.	Ensure that the development regulations and ordinances require the installation of pedestrian linkages between residential areas and schools, shopping areas, and recreational, cultural and/or government facilities.	No substantive change.	11.1 Require the installation of pedestrian linkages between residential areas and schools, shopping areas, and recreational, cultural and public facilities.
2.	Annually review, and if necessary revise, in conjunction with the County’s six-year road plans, the recommended sidewalk plan contained in this Plan (see Map T-11) to ensure that the categorization and prioritization of proposed sidewalk locations remain applicable and appropriate.	No substantive change.	11.2 Annually review, and if necessary revise, in conjunction with the County’s six year roads plans, the recommended sidewalk plan contained in this Plan to ensure that the categorization and prioritization of proposed sidewalk locations remain applicable and appropriate.

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3. Develop new walkways and complete existing walkway systems, including marked crosswalks, lighting, and signals where appropriate, in conjunction with adjoining jurisdictions and provide aesthetically appealing sidewalks in commercial, tourist-oriented, and residential areas as opportunities arise and funding becomes available. In such situations, deference should be given to the planned sidewalk network shown on Map T-11 .	<i>No substantive change. Divided into two separate strategies.</i>	12.1 Develop new walkways and complete existing walkway systems, including marked crosswalks, lighting, and signals where appropriate, in conjunction with adjoining jurisdictions.
		12.2 Provide inviting and appealing sidewalks in commercial, tourist-oriented, and residential areas as opportunities arise and funding becomes available.
4. Require walkways in new medium and high density residential development.	<i>No substantive change – Revised to incorporate Implementation Strategy #1.</i>	12.3 Require walkways in new medium- and high-density residential development and as a part of development plan approvals where appropriate.
5. Develop a walking tour of Yorktown incorporating both the historic area and the waterfront. Construct, as necessary, pedestrian facilities to support this walking tour and publish a walking guide to the village incorporating maps and historical information about the buildings and sites along the way.	<i>No change.</i>	11.3 Develop a walking tour of Yorktown incorporating both the historic area and the waterfront. Construct, as necessary, pedestrian facilities to support this walking tour and publish a walking guide to the village incorporating maps and historical information about the buildings and sites along the way.
6. Include, as appropriate, sidewalk construction as a part of roadway construction or improvement projects.	<i>No change.</i>	12.4 Include, as appropriate, sidewalk construction as a part of roadway construction or improvement projects.
		NEW RECOMMENDATIONS
		11. Encourage people to make short trips by foot.
		12. Provide a safe and convenient walking environment for pedestrians.
		13. Reduce the number and severity of pedestrian traffic accidents.
WATERWAYS		
A. OBJECTIVES		
1. Restrict deepwater ports to existing available facilities and do not encourage expansion of industrially-related deepwater activities.	<i>Combined with Implementation Strategy #1 below, reworded, and moved to the <u>Land Use</u> element as a Goal and a Strategy.</i>	8. Protect unspoiled vistas and views of the water. (<u>Land Use</u>)
		8.1 Restrict deepwater ports to existing available facilities and do not encourage expansion of industrially-related deepwater activities. (<u>Land Use</u>)
2. Develop, in conjunction with the U.S. Coast Guard, other governmental entities and agencies, and private industry, a comprehensive emergency response plan for water-borne disasters and oil and hazardous material spills and incorporate	<i>Deleted to eliminate redundancy with Implementation Strategy #2 below.</i>	

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such a plan into the County's overall emergency plan.		
3. Promote Yorktown as both an origination point and a port-of-call for small passenger cruise ship operations.	<i>No change.</i>	15.1 Promote Yorktown as both an origination point and port-of-call for small passenger cruise ship operations.
B. IMPLEMENTATION STRATEGIES		
1. The attractiveness of York County for both residential living and economic development is due, in part, to the many unspoiled vistas and views of the water. Industrial waterfront activities are incompatible with this aesthetic appeal and therefore, industrial type (i.e., cargo handling) deepwater ports should be restricted to existing facilities and expansion of industrially-related deepwater activities should not be encouraged.	<i>See Objective #1 above.</i>	
2. Develop, in conjunction with the U.S. Coast Guard, other governmental entities and agencies, and private industry, a comprehensive emergency preparedness and response plan for water-borne disasters and oil and hazardous material spills and incorporate such a plan into the County's overall emergency plan.	<i>No change—specific Strategy added.</i>	14.1 Develop, in conjunction with the U.S. Coast Guard, other governmental entities and agencies, and private industry, a comprehensive emergency preparedness and response plan for water-borne disasters and oil and hazardous material spills and incorporate such a plan into the County's overall emergency plan.
3. Capitalize on Yorktown's historical significance and location to promote Yorktown as both an origination point and port-of-call for small passenger cruise ship operations.	<i>Deleted to eliminate redundancy with Objective #3 above.</i>	
4. Exploit the opportunities available to revitalize the Yorktown waterfront and strengthen the relationship between Yorktown and the York River. Lunch and dinner cruises, a fresh seafood market/pier, transient boat dockage, reconstructed Eighteenth Century port facilities, and public access to the water are all worthy of consideration.	<i>Specific Strategy added.</i>	15. Revitalize the Yorktown waterfront and strengthen the relationship between the York River and Yorktown. 15.2 In accordance with the <u>Yorktown Master Plan</u> , exploit opportunities available to revitalize the Yorktown waterfront and strengthen the relationship between Yorktown and the York River.
5. Investigate the feasibility of developing a plan for meeting dredging needs for both recreational and commercial watercraft, including locating appropriate spoils sites.	<i>Revised.</i>	16. Explore opportunities for meeting dredging needs for both recreational and commercial watercraft.
		NEW RECOMMENDATIONS
		14. Enhance the safety of the County's

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		waterways.
		14.2Regulate the use of jet skis and other watercraft and provide enforcement.

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UTILITIES		
OVERALL GOAL		
Provide utility services to appropriate locations and in a manner which serves community needs conveniently, efficiently, and economically. Public utilities should be a primary factor in guiding residential, commercial, and industrial development into appropriate areas.	<i>Revised for specificity and reworded in the form of a Vision statement.</i>	York County should be a locality where the people have access to safe and efficient means of wastewater disposal, to water supplies that are sufficient in quality and quantity to meet household and fire suppression needs, and to other utilities that enhance the overall quality of life.
OVERALL		
A. OBJECTIVES		
1. Ensure that the extension, site selection and timing of public utilities services, whether publicly or privately funded, is accomplished in accordance with current and anticipated needs.	<i>Deleted – Statement is superfluous.</i>	
2. Guide the expansion of utilities services into undeveloped areas in such a manner as to ensure long-term financial viability (including operating, maintenance, and debt service costs) and to prevent future service shortfalls.	<i>Deleted – This goal is encompassed in subsequent Goals and Strategies related to the Utilities Strategic Capital Plan..</i>	
3. Plan public utilities in recognition that service to designated areas of the County should be deferred because of environmental constraints, high costs and/or planned low density development. The capacity of the designated areas to support well and septic systems while maintaining acceptable health levels must be considered as well as the potential for creating development densities and intensities which are consistent with the <u>Comprehensive Plan</u> .	<i>Revised and divided into two Goals and a Strategy that appears in the <u>Land Use</u> element.</i>	4. Extend public sewer to areas in the County based on a priority system that includes the following criteria: <ul style="list-style-type: none">• Health considerations• Fiscal constraints• Potential development densities• Economic development opportunities• Environmental constraints
4. Use public utilities planning to guide development into appropriate areas.		8. Extend public water to areas in the County based on a priority system that includes the following criteria: <ul style="list-style-type: none">• Health considerations• Fire suppression needs• Fiscal constraints• Potential development densities• Economic development opportunities• Environmental constraints
		2.3 Guide specific types and densities of development to specific areas of the County through planning, zoning and utility extension policies. (<u>Land Use</u>)
REGULATED UTILITIES		
A. OBJECTIVES		
1. Continue and strengthen requirements that all utilities be placed underground in new development.	<i>Deleted to eliminate redundancy with Implementation Strategy #1 below.</i>	
2. Work with utility companies to	<i>Deleted to eliminate redundancy</i>	

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remove price differentials between aboveground and underground utility placement.	<i>with Implementation Strategy #2 below.</i>	
3. Establish utility placement criteria which minimize the amount of tree clearing required for utility installation and maintenance.	<i>Revised to eliminate redundancy and (see Implementation Strategy 4 below) and to emphasize that the actual objective is to minimize the amount of tree clearing, whereas “establishing utility placement criteria” is a strategy for achieving that objective.</i>	2. Minimize the amount of tree clearing required for utility installation and maintenance.
4. Encourage the replacement of aboveground utilities with underground utilities, especially along scenic roads and roadway corridors which access tourist areas.	<i>Deleted to eliminate redundancy with Implementation Strategy #5 below.</i>	
C. IMPLEMENTATION STRATEGIES		
1. Require underground installation of all utilities in new residential, commercial and selected industrial development.	<i>No substantive change.</i>	1.1 Continue to require underground installation of all utilities in new residential, commercial, and selected industrial development.
2. Pursue the reduction of price differentials between aboveground and underground utility placement.	<i>No change.</i>	1.2 Pursue the reduction of price differentials between aboveground and underground utility placement.
3. Pursue enabling legislation to include the costs of replacing aboveground utilities with underground utilities in concert with VDOT road projects.	<i>No change.</i>	1.3 Pursue enabling legislation to include the costs of replacing aboveground utilities with underground utilities in concert with VDOT road projects.
4. Ensure that the zoning and various utilities ordinances incorporate utility placement criteria which minimize the tree clearing requirements for utility installation and maintenance. Additionally, tree replacement within temporary construction easements should be required.	<i>No substantive change.</i>	2.1 Continue to ensure that the zoning and various utilities ordinances incorporate utility placement criteria that minimize tree clearing requirements for utility installation and maintenance. Additionally, tree replacement within temporary construction easements should be required.
5. Designate priorities for the replacement of aboveground utilities with underground utilities with a primary focus on scenic roadways and tourist and commercial access corridors. These priorities should be funded by annual appropriations through the County Capital Improvement Program.	<i>No substantive change. Revised for brevity.</i>	1.4 Designate priorities for the replacement of aboveground utilities with underground utilities with a primary focus on scenic roadways and tourist areas, funded by annual appropriations through the Capital Improvements Program.
6. Develop and implement landscaping and screening standards and requirements for various utility placements and structures including transformers, meters, antennae, and other similar aboveground structures.	<i>Updated and revised for brevity.</i>	2.2 Continue to implement landscaping and screening standards and requirements for various utility placements and structures including transformers, meters, antennae, and other similar aboveground structures.

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Such landscaping, while not necessarily hiding or completely screening these structures, should be utilized to soften the visual impact.		
7. Support the development of state-of-the-art telecommunications facilities in the County to serve both the educational and professional/commercial communities. The County's development ordinances should provide appropriate opportunities for such facilities in the County, but in such locations as to ensure maximum connectivity without sacrificing aesthetic objectives.	<i>Expanded for specificity</i>	3. Support and regulate the development of state-of-the-art telecommunications facilities in the County to serve both the educational and business communities and provide needed connectivity without sacrificing aesthetic objectives.
		NEW RECOMMENDATIONS
		1. Eliminate overhead utilities.
		3.1 Discourage or prohibit towers in historic or residential areas unless there is no other practical option. When towers are to be located within or adjacent to such areas, they should be disguised in some manner and not pierce the ambient tree line.
		3.2 Guide towers to industrial areas and other areas where towers already exist.
		3.3 Require towers to be engineered to support multiple users.
		3.4 Limit the height of towers so that they will not require lighting unless a tower with lighting already exists nearby.
		3.5 Ensure that new antenna support structures are safe and blend into the surrounding environment when possible.
SEWER		
A. OBJECTIVES		
1. Prohibit development of any new privately-owned sewage treatment systems (package plants) and alternative septic systems such as sand mounds.	<i>Deleted – Objective has been met.</i>	
2. Establish specific minimum maintenance intervals for septic systems.	<i>Deleted – Strategy has been completed.</i>	
3. Develop a priority system based on established criteria for the extension of public sewer.	<i>Deleted – Strategy has been completed with the completion of the Target 2000 plan.</i>	
4. Consider alternatives to conventional gravity line sewer systems which can serve existing development while not promoting expanded development.	<i>Deleted to eliminate redundancy with Implementation Strategy 3 below.</i>	

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5. Evaluate the consequences of building fewer, but bigger, pump stations in an effort to minimize maintenance costs as opposed to requiring developers to build systems only large enough to serve their developments and, thereby, not opening large adjacent areas for development.	<i>Deleted – Objective has been met.</i>	
6. Require all new development, except very low density residential, to be connected to public sewer.	<i>Deleted to eliminate redundancy with Implementation Strategy 5 below.</i>	
		NEW RECOMMENDATIONS
		5. Prevent development from exceeding the capacity of the public sewer system.
		6. Reduce the incidence of failing sewer systems
B. IMPLEMENTATION STRATEGIES		
1. Amend Chapter 18 (Sewers and Sewage Disposal) of the County Code to prohibit development of any new privately-owned sewage treatment systems (package plants) and alternative septic systems such as sand mounds; and to establish specific minimum maintenance intervals for septic systems.	<i>Deleted – Strategy has been completed.</i>	
2. Develop and regularly update a priority system for the installation or extension of public sewer. The criteria for such system should include, at a minimum, the following: health considerations, fiscal constraints, potential development densities with and without installation/extension, economic development	<i>Revised to reflect initiation and continuation of the <u>Target 2000</u> program since the adoption of the 1991 <u>Comprehensive Plan</u>.</i>	4.1 Continue to implement the <u>Utilities Strategic Capital Plan</u> .
3. Employ alternatives to conventional gravity line sewer systems (e.g. - vacuum system) in order to serve existing development. These alternative methods should only be used to correct existing health problems, not for expansion of development.	<i>Revised for brevity.</i>	4.2 Consider alternatives to conventional gravity line sewer systems – such as vacuum systems – that can serve existing development while not promoting expanded development.
4. Conduct an overall economic evaluation of the total public service consequences of the County's current policy of building fewer, but larger capacity, pump stations to serve specific areas and minimize maintenance costs.	<i>Deleted – Strategy has been completed.</i>	
5. Amend the zoning and subdivision ordinances to require that all new commercial,	<i>No substantive change. Revised for brevity.</i>	6.1 Require all new development, except very low-density residential, to be connected to public sewer.

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industrial, and multi-family development and all newly platted single-family residential lots, except very low density residential (1 unit per 2 ⁺ acres), be connected to public sewer.		
6. Evaluate the various operational/organizational alternatives for utility service delivery including service authorities, sanitary districts and operating departments.	<i>Deleted – Strategy has been completed.</i>	
7. Use all available tools and techniques to defer all or part of permitted development while such time as adequate public infrastructure is in place to support the development.	<i>Revised to recommend expanding the range of tools and techniques to allow the County to deter development.</i>	5.1 Use all available tools and techniques to defer all or part of permitted development while such time as adequate public infrastructure is in place to support the development, and seek enabling legislation to expand the County's authority in this regard.
8. Consider extending sewer to the following areas of the County during the first phase of a coordinated sewer construction/extension program: <ul style="list-style-type: none"> • Green Springs • Mill Cove • Seaford (portion using vacuum system) • Tabb Terrace 	<i>Deleted – Strategy has been completed.</i>	
9. Establish level tap fees for new or extended sewer lines which fully recover their capital costs (including principal, interest, and administrative costs). However, alternatives to full cost recovery tap fees should be investigated and utilized, where appropriate, for sewer extensions to existing development or where the potential economic development benefits so warrant.	<i>Deleted – Strategy has been completed.</i>	
10. Amend the appropriate development ordinances to require a minimum separation between septic drainlines and the seasonal high water table. The required separation should be the minimum necessary, based on the best available information, to ensure that groundwater resources are not contaminated by septic effluents.	<i>Deleted – Strategy has been completed.</i>	
		NEW RECOMMENDATIONS
		6. Support the upgrading of Hampton Roads Sanitation District wastewater facilities in accordance

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		with the HRSD's adopted <u>Development Plan</u> and its annual <u>Facilities Management Plan</u> and <u>Capital Improvements Program</u> .
STORMWATER MANAGEMENT		
A. OBJECTIVES		
1. Provide opportunities for varying land use densities and intensities in recognition of the capability of storm drainage systems to effectively remove storm water runoff from developed areas without danger to persons, property or the environment.	<i>Revised to eliminate redundancy with Implementation Strategy 1 below and to emphasize that the actual goal is to reduce danger from runoff, whereas "providing opportunities for varying land use densities" is a strategy for achieving that goal.</i>	7. Reduce danger to persons, property, and the environment caused by stormwater runoff from developed areas.
2. Require underground storm water management systems and curb and gutter in new medium and high density residential developments and in all new commercial subdivisions.	<i>Deleted to eliminate redundancy with Implementation Strategy 2 below</i>	
3. Develop and adopt standards to establish a maximum allowable depth for roadside ditches where curb and gutter is not required.	<i>Deleted – Objective has been met.</i>	
4. Establish special stormwater runoff control techniques for all new development to prevent any increase in runoff borne sediment pollutant, or toxic loadings.	<i>No substantive change</i>	7.3 Establish special control techniques for all new development to prevent any increase in runoff-borne sediment, pollutant, or toxic loading.
5. Develop a County-wide stormwater management system.	<i>Deleted.</i>	
B. IMPLEMENTATION STRATEGIES		
1. Ensure that the County's development ordinances require storm drainage systems that effectively remove stormwater runoff from developed areas without danger to persons, property or the environment.	<i>No substantive change. Revised for brevity and clarity.</i>	7.1 Continue to require storm drainage systems that effectively remove stormwater runoff from developed properties.
2. Review, and if necessary, amend the County development ordinances to require underground stormwater management systems and curb/gutter in new medium and high density residential developments and in designated commercial and industrial subdivisions. Where curb and gutter is not required, standards for allowable roadside ditches must be developed and provided.	<i>Updated – No substantive change.</i>	7.2 Continue to require underground storm water management systems and curb and gutter in new medium- and high-density residential developments and in all new commercial subdivisions.
3. Develop and implement a County stormwater runoff control manual which details appropriate techniques for use in all new development in order to prevent an increase in sediment, pollutant,	<i>No substantive change.</i>	7.5 Continue to develop and implement a County stormwater runoff control manual detailing appropriate techniques to prevent increases in sediment, pollutant, or toxic loadings. Once developed and

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or toxic loadings. Once developed and tested, use of the manual should be required through appropriate amendments to the development ordinances.		tested, use of the manual should be required through appropriate amendments to the development ordinances.
4. Develop and implement a County-wide stormwater management plan.	<i>Deleted – Strategy has been completed.</i>	
5. Obtain and use state-of-the-art computer stormwater modelling software to assist all developers and landowners to use designs which qualitatively and quantitatively improve stormwater runoff from land development activities in the County.	<i>No substantive change.</i>	7.6 Continue to use state-of-the-art computer stormwater modeling to assist all developers and landowners to use designs that qualitatively and quantitatively improve stormwater runoff from land development activities in the County.
6. Investigate the possibility of placing certain limitations on the amount of impervious surface area associated with land development. Such limitations should be tailored to the needs and characteristics of specific drainage areas and might include increased open space requirements, the use of alternative pavement types such as porous asphalt or waffle block pavers, or other appropriate methods including various combinations thereof. As a part of this investigation, both an economic analysis and an environmental analysis of the costs and benefits should be undertaken.	<i>Deleted.</i>	
		NEW RECOMMENDATION
		7.4 Encourage the development and joint use of regional retention/detention ponds in residential and commercial developments wherever possible.
WATER		
A. OBJECTIVES		
1. Plan for adequate water supply and main capacity to ensure a balance of residential, commercial, and industrial connections, for both existing and planned development.	<i>Deleted to eliminate redundancy with Implementation Strategy #1 below.</i>	
2. Continue to participate in regional approaches to water supply and availability. In this regard, explore the concept of creating a regional water authority/district.	<i>Deleted to eliminate redundancy with Implementation Strategy #2 below.</i>	
3. Identify the possibilities for lessening the County's dependence on other localities for	<i>Deleted.</i>	

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public water service through such things as the joint development of additional surface water reservoirs with neighboring localities.		
4. Establish guidelines to limit water intensive development.	<i>Combined into a single Objective.</i>	11. Discourage excessive water use.
5. Develop standards requiring the use of water conservation techniques in all new development and redevelopment.		
6. Require all new development, except very low density residential, to be connected to public water or to a publicly-owned central water system.	<i>No substantive change.</i>	10.1 Require all new development, except very low-density residential, to be connected to public water or to a publicly-owned central water system.
7. Establish criteria for the prioritization of water extensions to existing and planned development.	<i>Deleted. Objective met.</i>	
B. IMPLEMENTATION STRATEGIES		
1. Plan for adequate water supply and main capacity to ensure a balance of residential, commercial, and industrial connections for both existing and planned development.	<i>No change.</i>	9.2 Plan for adequate water supply and main capacity to ensure a balance of residential, commercial, and industrial connections for both existing and planned development.
2. Continue to participate in regional approaches to water supply and availability. The creation of a regional water authority/district not operated by or for the benefit of a single jurisdiction should be a priority for the County. In this regard, the County should not pursue the long-term development of its own reservoir although it is appropriate for the County to develop its groundwater resources and explore other available sources. The County should work toward jointly developing additional surface water storage and withdrawal capacity with neighboring jurisdictions.	<i>No substantive change. Revised for brevity and clarity.</i>	9.1 Continue to participate in regional approaches to water supply and availability, with emphasis on the creation of a regional water authority or district. The County should work toward jointly developing additional surface water storage and withdrawal capacity with neighboring jurisdictions.
3. Establish guidelines or regulations which limit or strongly discourage development types which are significantly large users of potable water. The County should not recruit water intensive economic development nor allow other entities acting on its behalf to do so.	<i>Deleted.</i>	
4. Seek enabling legislation from the Virginia General Assembly which would allow the County to amend the building code and other appropriate development	<i>No change.</i>	11.2 Seek enabling legislation from the Virginia General Assembly to allow the County to amend the building code and other appropriate development

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ordinances to require the application of water conservation techniques in all new development and redevelopment projects.		ordinances to require the application of water conservation techniques in all new development and redevelopment projects.
5. Amend the zoning and subdivision ordinances to require that all new commercial, industrial, and multi-family development and all newly platted single-family residential lots, except very low density residential (1 unit per 2 ⁺ acres), be connected to public water or publicly-owned central water systems.	<i>Deleted – Strategy has been completed.</i>	
6. Develop and regularly update a priority system for the installation or extension of public water. The criteria for such priority system should include, at a minimum, the following: health considerations, fire suppression needs, fiscal constraints, potential development densities with and without installation/extension, economic development opportunities, and environmental constraints.	<i>Revised to reflect the initiation and continuation of the Target 2000 program since the adoption of the 1991 Comprehensive Plan.</i>	8.1 Continue to implement the <u>Utilities Strategic Capital Plan</u> .
7. Continue to require that new and extended water lines and systems be sized to provide adequate flows for fire suppression purposes.	<i>No change.</i>	9.3 Continue to require that new and extended water lines and systems be sized to provide adequate flows for fire suppression purposes.
8. Evaluate the various operational/organizational alternatives for utility service delivery including service authorities, sanitary districts and operating departments.	<i>Deleted – Strategy has been completed.</i>	
9. Use all available tools and techniques to defer all or part of permitted development until such time as adequate public infrastructure is in place to support the development.	<i>Revised to recommend expanding the range of tools and techniques to allow the County to deter development.</i>	9.4 Use all available tools and techniques to defer all or part of permitted development until such time as adequate public infrastructure is in place to support the development, and seek enabling legislation to expand the County's authority in this regard.
10. Consider extending water to the following areas of the County during the first phase of a coordinated water construction/extension program: <ul style="list-style-type: none"> • Brook Lane/Riverside Drive • Mansion Road • Whites Road • Woodland Drive/Jonadab Road 	<i>Deleted—Strategy completed.</i>	
11. Establish level meter fees for new or extended water lines which fully recover their capital costs	<i>Deleted—Strategy completed.</i>	

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(including principal, interest, and administrative costs). However, alternatives to full cost recovery meter fees should be investigated and utilized, where appropriate, for water extensions to existing development or where the potential economic development benefits so warrant.		
12. Continue the County's participation in the Regional Raw Water Study Group. (<u>Land Use element</u>)	<i>No change. This strategy has been moved from the <u>Land Use</u> element to the <u>Utilities</u> element.</i>	9.5 Continue the County's participation in the Regional Raw Water Study Group.
		NEW RECOMMENDATION
		9. Expand the supply of potable water in the County and the region.
		10. Protect the quality and quantity of groundwater.

APPENDIX J: GLOSSARY OF TERMS

Aquifer: An underground formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Beach Nourishment: The placement of sand or fill material along the shoreline to replace lost material.

Bikeway: A transportation facility designed to safely accommodate bicycle traffic. Bikeways are divided into three general classes:

- **Multi-use trails:** Bikeways that are constructed physically separate from roadways.
- **Paved shoulders:** Bikeways constructed adjacent to traffic lanes and generally delineated by pavement markings.
- **Shared roadways:** Bikeways where the travel lanes are shared by all users of the roadway.

Breakwaters: Offshore structures usually constructed parallel to the shore and designed to dissipate wave energy before it reaches the shore.

Bulkhead: A vertical structure, usually timber or recycled plastic, constructed of pilings and sheeting placed parallel to the shoreline and intended to retain upland soils while providing protection from minimal wave action.

Capital Improvement Program (CIP): A multi-year plan to guide the construction or acquisition of capital projects. It identifies needed capital projects, estimates their costs, and lists the year in which each should be started.

Census Tract: A small, relatively permanent statistical subdivision of a county or city.

Chesapeake Bay Preservation Area (CBPA): Any land designated by the County pursuant to the Chesapeake Bay Preservation Area Designation and Management Regulations, VR 173-02-01, and sections 10.1-2100, et seq., Code of Virginia. The Chesapeake Bay Preservation Area consists of a resource protection area and a resource management area.

Cluster subdivision: A form of residential development that concentrates dwellings in a specified area with a corresponding reduction in lot area and dimension requirements in order to allow the remaining land area to be devoted to perpetual common open space which may be used for recreation, both active and passive, and the preservation of environmentally sensitive areas. Also may be referred to as “open space development.”

Colonial Soil and Water Conservation District: The local division of the Virginia Department of Conservation and Recreation. Its responsibilities include developing comprehensive programs and plans for the conservation of soil and water resources and control and prevention of soil erosion.

Comprehensive Plan: The long-range plan, adopted by the Board of Supervisors in accordance with Section 15.2-2226 of the Code of Virginia, for the physical development of York County. Pursuant to Section 15.2-2230 of the Code of Virginia, the comprehensive plan must be reviewed – and, if necessary, revised – at least once every five years.

Density: The number of housing units per unit of land (typically expressed in units per acre).

- **Gross density:** Gross density is calculated by including all the land within the boundaries of a particular tract, parcel, or area.
- **Net density:** Net density is calculated by excluding certain areas including streets, easements, water areas, lands with environmental constraints, and other such areas.

Development: The division of land into two or more parcels, or the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any structure; any mining, excavation, landfill, or land disturbance, or any use or extension of the use of the land.

Drainage: The removal of surface water or groundwater from land by drains, ditches, piping, grading, or other means.

Groin: A shore protection structure, usually a timber “wall,” built perpendicular to the shore to trap sand moving along the shore in order to accrete sand and thus retard erosion.

Housing (or dwelling) unit: A single unit of one or more rooms providing complete, independent living facilities for one family, including permanent provisions for living, sleeping, cooking, and sanitation.

- **Accessory apartment:** A separate and complete housekeeping unit that provides complete living, sleeping, sanitation, and cooking facilities. Such unit may be contained within or outside of a primary residence but is clearly secondary to a primary single-family housing unit located on the same lot.
- **Single-family attached:** A row or combination of at least two one-family housing units, with each unit having separate outside access, each unit separated from any other unit by one or more common fire-resistant walls, and each unit located on a separate lot. The term “single-family attached” includes the following types of dwellings:
 - **Duplex:** A one-family housing unit attached to one other one-family housing unit by a common vertical fire-resistant wall, with each housing unit located on a separate lot.
 - **Multiplex:** A one-family housing unit in a combination (back-to-back, side-to-side, or back-to-side) of at least three such units with each unit having at least two exterior walls, each unit separated from any other by common fire-resistant walls, and each unit located on a separate lot.
 - **Townhouse:** A type of multiplex unit, in a row of at least three such units, with each having its own front and rear or side access to the outside, each unit separated from any other by common fire-resistant walls, and each unit located on a separate lot.
- **Single-family detached:** A one-family housing unit that is surrounded on all sides by yards or other open space located on the same lot and which is not attached to any other dwelling by any means.

In-fill development: The development of small, scattered vacant sites that are surrounded or essentially surrounded by existing development and which because of location, configuration, access requirements, adjacent development patterns, or similar characteristics, may necessitate special consideration during the development process.

Intelligent Transportation System (ITS): The application of advanced technologies (e.g., electronics, communications, and information processing) to improve the efficiency and safety of a transportation system.

Intensely Developed Area: A portion of a resource protection area or a resource management area designated by the County where development is concentrated and little of the natural environment remains.

ISTEA (Intermodal Surface Transportation and Efficiency Act): The Federal surface transportation authorization legislation, signed into law on December 18, 1991, which authorizes the Federal-aid highway, transit, and safety program for the Federal fiscal years 1992 through 1997.

Manufactured Home: A structure subject to federal regulatory standards (the National Manufactured Home Construction and Safety Standards Act) which is transportable in one or more sections; is built on a permanent chassis; is designed to be used as a single-family dwelling, with or without a permanent foundation, when connected to the required utilities; and includes the plumbing, heating, air conditioning and electrical systems contained in the structure.

Metropolitan Statistical Area (MSA): A large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that nucleus.

National Ambient Air Quality Standards (NAAQS): Standards promulgated by the federal Environmental Protection Agency for specified air pollutants, including suspended particulates, sulfur dioxide, carbon monoxide, nitrogen dioxide, ozone, hydrocarbons, and lead.

Nontidal Wetlands: Those wetlands, other than tidal wetlands, that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, as defined by the Federal Manual for Identifying and Delineating Jurisdictional Wetlands dated 1987, as it may be amended from time to time.

Park: Any public or private land available for recreational, educational, cultural, or aesthetic use.

Planned development: An area approved by the Board of Supervisors and planned and developed under a single master plan and containing one or more land uses.

Public sewer system: A sewer system owned and operated by a municipality, county, service authority, or sanitary district.

Public water system: A water system owned and operated by a municipality, county, service authority, or sanitary district.

Redevelopment: The process of developing land that is or has been previously developed.

Resource Management Area (RMA): That component of the Chesapeake Bay Preservation Area that is not classified as the resource protection area. RMAs include land types that, if improperly used or developed, have the potential for causing significant water quality degradation or for diminishing the functional value of the resource protection area.

Resource Protection Area (RPA): That component of the Chesapeake Bay Preservation Area comprised of lands at or near the shoreline that have an intrinsic water quality value because of the ecological and biological processes they perform or are sensitive to impacts that may result in significant degradation to the quality of state waters. The RPA also includes a buffer area, which is 100 feet wide measured from the landward side of the RPA.

Revetment: A sloping granite rock structure placed on filter fabric along the shoreline to dissipate wave energy. A revetment is also commonly known as “riprap”.

Sanitary sewer: Pipe conduits used to collect and carry away domestic, commercial, or industrial sewage from the generating source to treatment plants. Storm, surface, and ground waters are not intentionally admitted into sanitary sewers.

Seawall: A vertical or sloping structure, usually poured in place concrete, built parallel to the shoreline and designed to withstand the full force of waves.

Septic system: An underground system with a septic tank and one or more drainlines, depending on volume and soil conditions, which is used for the decomposition of domestic wastes.

Setback: The required minimum horizontal distance from any street right-of-way line, lot line, or other designated line that establishes the area within which buildings or structures may be erected.

Shrink-swell soils: Soils containing clays that shrink when dry and swell when wet.

Street Classification: Streets are referred to by the following functional classifications:

- **Access street:** The lowest order of street, designed to serve low volumes of traffic at low operating speeds. As its primary function is to provide access to individual lots, access streets should carry only the volume of traffic generated on the street itself. Cul-de-sacs and other terminal streets are typical of this order of street
- **Subcollector street:** The second order of street, designed to carry moderate volumes of traffic, at the same low operating speeds as access streets. Such streets collect traffic from access streets as well as provide access to individual lots. Long cul-de-sacs and other terminal streets may be within this order of streets where their traffic volumes exceed the standards for access streets.
- **Collector street:** The highest order of street generally permitted within a residential subdivision, designed to conduct and distribute traffic between streets of lower order and streets of higher order linking major activity centers. The class is further divided into “major” and “minor” collector based on traffic volumes.
- **Arterial street:** Includes streets and roads that function within a regional network conveying traffic between major activity centers. The purpose of such streets is to carry relatively large volumes of traffic at higher speeds. Such streets are not intended for direct residential lot access, while commercial or industrial lot access is typically controlled and limited to high trip volume generators. Like collector streets, the arterial class is further divided into “major” and “minor” arterial based on traffic volumes.
- **Expressways and freeways:** The highest order of roadway, designed exclusively for unrestricted movement of traffic. Access is only with selected arterials by means of interchanges.

Subdivision: The division of a lot, tract, or parcel of land into two or more lots, parcels, or other divisions of land for the purpose of transfer of ownership.

TEA-21 (Transportation Equity Act for the 21st Century): The Federal surface transportation authorization legislation that replaced ISTEA, which expired on September 30, 1997. TEA-21 authorizes the Federal-aid highway, transit, and safety program for the Federal fiscal years 1998 through 2003.

Tidal Wetlands: Vegetated and non-vegetated wetlands lying between and contiguous to mean low water and an elevation above mean low water equal to the factor 1.5 times the mean tide range.

Volume/Capacity Ratio: The ratio of the traffic volume on a given road to its carrying capacity.

Watershed: Any area lying within the drainage basin of any reservoir.

Wetland: An area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that, under normal circumstances, does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

Zoning: The delineation of districts and the establishment of regulations governing the use, placement, spacing, and size of land and buildings.